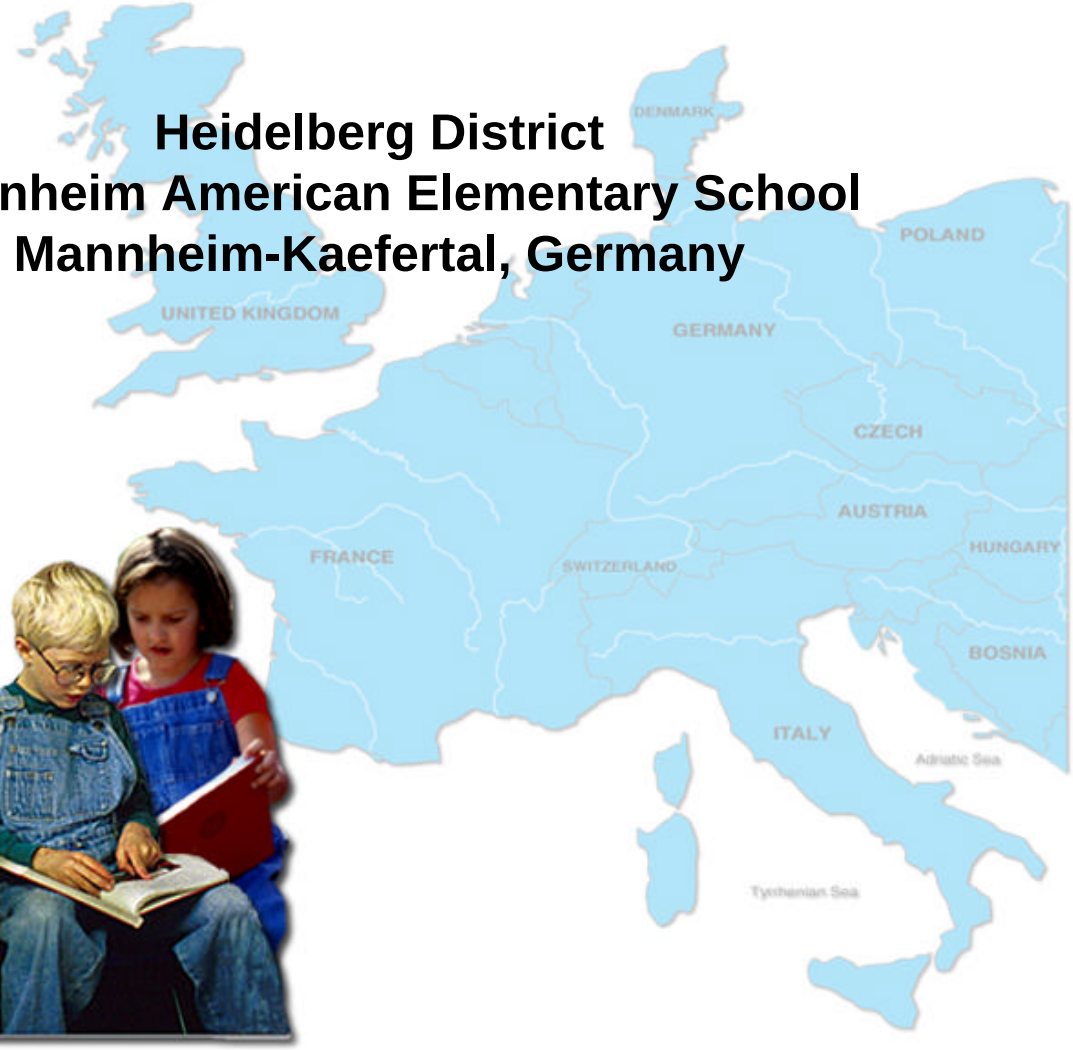
DEPARTMENT OF DEFENSE EDUCATION ACTIVITY

Department of Defense Dependents Schools - Europe

2003 AHERA
ASBESTOS MANAGEMENT REPORT

Heidelberg District
Mannheim American Elementary School
Mannheim-Kaefertal, Germany



Prepared by:

Baker Environmental, Inc.

A Unit of Michael Baker Corporation

Under Contract with:

U.S. Army Corps of Engineers

Transatlantic Programs Center

DEPARTMENT OF DEFENSE
EDUCATION ACTIVITY
ASBESTOS MANAGEMENT PROGRAM

2003 AHERA Inspection Report

for

Mannheim American Elementary School
Mannheim-Kaefertal, Germany
HE 3469

Prepared For:

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2003 AHERA INSPECTION REPORT
FOR
MANNHEIM AMERICAN ELEMENTARY SCHOOL
HE 3469

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IMPORTANT FOREWORD

The information presented in this report satisfies the reporting requirements of the AHERA legislation and DODEA policy regarding asbestos inspections conducted in DODEA facilities worldwide.

Under DODEA Asbestos Management Policy, the principal is the Asbestos Coordinator for this location. Prior to any activity that is likely to disturb building materials, the principal is responsible for ensuring that a thorough review of materials identified in this report has been completed.

FOR A SUMMARY TABULATION OF WHERE ASBESTOS WAS FOUND, AND WHAT SHOULD BE DONE ABOUT IT, PLEASE REFER TO TABLES 4.1 AND 5.1 PRINTED ON BLUE-TINTED PAPER.

Please also note that not all building materials have been tested. Examples of this may be materials which are hidden from view, inaccessible, or where sampling would be destructive. **THEREFORE, THERE IS NO ASSURANCE THAT UNTESTED MATERIALS ARE ASBESTOS-FREE.**

1.0 INTRODUCTION

As part of the Department of Defense Education Activity (DODEA) Asbestos Management Program, Baker Environmental, Inc. (Baker) has been contracted to inspect each Department of Defense Dependents Schools (DODDS) location for suspected, known, or assumed friable and non-friable asbestos-containing materials (ACM), in accordance with 40 CFR Part 763, Subpart E, the governing regulations of the Asbestos Hazard Emergency Response Act (AHERA). Technical management of the DODEA Asbestos Management Program is being carried out by the U.S. Army Corps of Engineers, Transatlantic Programs Center (USACE-TAC).

In preparation for this inspection, Baker staff reviewed previous asbestos information related to this location and available to Baker.

The inspection included the following activities:

- Identification of all previously known or previously assumed friable and non-friable suspected ACM.
- Identification and sampling, by homogeneous area, of any newly identified suspect ACM.
- Sampling of previously assumed ACM, if accessible.
- An assessment of all suspected, known, or assumed ACM.

Baker provided independent sample analyses under the approved Environmental Protection Agency (EPA) method described in 40 CFR Part 763, Appendix A, Subpart F, by subcontracting the analyses to laboratories accredited in accordance with standards set by the U.S. National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP).

This report provides:

- a summary of inspection activities at this location;
- a description of the assessment and sampling methods employed;
- a table summarizing the results of the inspection and sample analyses; and,
- recommendations for management actions for asbestos materials.

The four appendices include:

- a statement of AHERA accreditations and inspector certifications;
- a glossary of terms frequently used throughout the report;
- plans identifying the locations of samples taken during this inspection with room numbers and names used in the tables; and,
- the laboratory sample analysis reports.

2.0 SUMMARY OF INSPECTION ACTIVITIES

The inspection of Mannheim American Elementary School was conducted on 2-8 July 2003, by a Baker field team. Team member names and credentials are in Appendix A.

The following list documents prior asbestos management activities at this location:

Final Survey Report, Mannheim Elementary School, GE 3469, July 1988, by Dynamac Corporation

Pre-Design Report, Mannheim Elementary School, GE 3469, November 1989, by Baker/TSA, Inc.

1991 AHERA Reinspection Report, Mannheim Elementary School, GE 3469, September 1991, by Baker/TSA, Inc.

1994 AHERA Inspection Report, Mannheim Elementary School, GE 3469, by Baker Environmental, Inc.

1997 Triennial Asbestos Resurvey Report, Mannheim Elementary School, GE 3469, by Baker Environmental, Inc.

2000 Triennial Asbestos Resurvey Report, Mannheim Elementary School, HE 3469, by Baker Environmental, Inc.

Baker's field team met with Mr. Don Watts, School Support Technician for Mannheim American Elementary School, at the beginning of the inspection. The following facility utilization was identified:

BUILDING NUMBER (Year Built)	FUNCTION
0697 (Unknown)	Multipurpose
0697K (Unknown)	Kindergarten
ANNEX B (Unknown)	Classrooms

BUILDING NUMBER (Year Built)	FUNCTION
ANNEX C (Unknown)	Classroom/Storage
ANNEX D (Unknown)	Classroom/Storage
ANNEX E (Unknown)	Administration
ANNEX M (Unknown)	Storage

According to Mr. Don Watts, no buildings have been vacated and no new buildings have been occupied since the last AHERA inspection. Building 0697 was renovated since the last AHERA inspection. The renovations involved the partial removal of asbestos-containing vinyl floor tile (Material Number 001) and its adhesive (Material Number 036), as well as the removal of several non asbestos-containing materials. No other renovations or additions have occurred in the buildings that comprise Mannheim American Elementary School since the last AHERA inspection.

At the beginning of this inspection, abatement set-up procedures were observed by the Baker field team in the upstairs classrooms of Wing D. According to the All Star contracting representative, Ms. Ellen Brown, the abatement was to comprise the removal of all flooring materials in all the upstairs classrooms of Wing D. Other abatement procedures were already under way in Room 01 when the Baker field team had arrived. According to Ms. Brown, this abatement was to include flooring materials only. During the course of this inspection, Room 01 was inaccessible to the Baker field team.

In the course of this inspection, 37 suspected or known asbestos-containing homogeneous materials were sampled and/or assessed in the buildings listed above. In addition to sampling and/or assessing the suspected or known asbestos materials, the Baker field team verified the location of previously identified non-asbestos materials. Specific information about each of these materials, including the results of the sample analysis, can be found in Section 4.0 of this report.

In Building 0697, the previous AHERA inspection identified seven ACM: vinyl floor tile (Material Number 001), sheet gasket (Material Number 019), stall partitions (Material Number 021), three types of floor adhesive (Material Number 036, 037, and 041), and wall plaster (Material Number 039). All of the previously identified ACM were located, assessed, and their quantities were confirmed, with the exception of one type of floor adhesive

(Material Number 041). This material is assumed to be present beneath the existing concrete flooring. One stall partition (Material Number 021) is damaged in Room 09D and should be removed. Sixty square feet of this material has also been relocated from one of the toilet rooms to the Old Boiler Room. This material should be removed. The Baker field team identified and sampled 21 additional suspect asbestos materials: vinyl floor sheeting (Material Number 106), six types of floor adhesive (Material Numbers 107, 117, 119, 123, 125, and 126), cove base adhesive (Material Number 108), electrical wire insulation (Material Number 109), two types of ceiling tile (Material Numbers 110 and 114), two types of wallboard (Material Numbers 111 and 113), three types of joint compound (Material Numbers 112, 116, and 124), cement flooring (Material Number 115), sheet gaskets (Material Number 118), rope gasket (Material Number 120), ceiling insulation (Material Number 121), and asphaltic vapor barrier (Material Number 122). The sheet gasket (Material Number 118) and rope gasket (Material Number 120) tested positive for asbestos. All of the other newly sampled materials tested negative for asbestos. To satisfy AHERA sampling requirements, one additional sample of duct insulation (Material Number 007) and five additional samples of exterior plasters were collected (Material Number 009). Both the duct insulation and the exterior plaster samples tested negative for asbestos.

In Building 0697K, the previous AHERA inspection did not identify any ACM. The Baker field team identified and sampled six suspect asbestos materials: sink coating (Material Number 127), sheet gasket (Material Number 128), two types of floor adhesive (Material Numbers 129 and 131), and two types of subfloor material (Material Numbers 130 and 132). The sheet gasket (Material Number 128) tested positive for asbestos. All of the other newly sampled materials tested negative for asbestos.

In Building Annex B, the previous AHERA inspection did not identify any ACM. The Baker field team did not identify any suspect asbestos materials and collected no samples.

In Building Annex C, the previous inspection did not identify any ACM. The Baker field team identified and sampled one suspect asbestos material: sink coating (Material Number 133). The newly sampled material tested negative for asbestos.

In Building Annex D, the previous AHERA inspection did not identify any ACM. The Baker field team did not identify any suspect asbestos materials and collected no samples.

In Building Annex E, the previous AHERA inspection did not identify any ACM. The Baker field team did not identify any suspect asbestos materials and collected no samples.

In Building Annex M, the previous AHERA inspection did not identify any ACM. The Baker field team did not identify any suspect asbestos materials and collected no samples.

3.0 ASSESSMENT AND SAMPLING METHODS

Assessment

An assessment was performed by accredited inspectors in conformance with Part 763.88 of the AHERA regulation for inspections [Section 763.85(b)], and guidelines in EPA Publication No. EPA 56015/85-024, "Guidance for Controlling Asbestos-Containing Materials in Buildings" ("The Purple Book") and EPA Publication No. EPA 700/B-92/001 "A Guide to Performing Reinspections Under The Asbestos Hazard Emergency Response Act (AHERA)", for all friable and non-friable known or assumed ACM in each school building at this location. Each homogeneous material was classified into one of the following categories:

1. Damaged or Significantly Damaged Thermal System Insulating ACM
2. Damaged Friable Surfacing ACM
3. Significantly Damaged Friable Surfacing ACM
4. Damaged or Significantly Damaged Friable Miscellaneous ACM
5. ACM with the Potential for Damage
6. ACM with the Potential for Significant Damage
7. Any Remaining Friable ACM or Friable Suspected ACM

N/A Any Remaining Material Assessed and Found to be Not Applicable to Any of the Seven Previous Categories

Definitions of these categories are contained in the glossary (Appendix B).

The inspectors considered the following factors to determine the above classifications:

- Location of Material
- Friability
- Type of Damage
- Percent of Damage
- Overall Condition
- Amount of Material
- Accessibility
- Influence of Vibration
- Influence of Air Erosion

Sampling

Each inspector utilized the sampling methodologies described in Part 763.86 of the AHERA regulations, in addition to guidelines described in EPA Publication No. EPA 560/5-85-030a, "Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials", and EPA Publication No. EPA 560/5-85-024, "Guidance for Controlling Asbestos-Containing Materials in Buildings", Appendix G. Inaccessible suspect materials were assumed to be asbestos-containing, as provided under the regulations.

Prior to shipment to a United States laboratory, each sample was properly sealed and labeled. Chain-of-custody documentation was sent to the laboratory with the samples.

4.0 RESULTS OF THE INSPECTION

Results of the inspection are presented on Table 4.1. The information on Table 4.1 is presented by building. Within each building, the information is grouped as follows:

- The first group contains all previously identified ACM that were confirmed to be present during the 2003 inspection, and any newly identified ACM.

- The second group contains all previously identified non-asbestos materials that were confirmed to be present during the 2003 inspection, and any new material identified during the 2003 inspection which was determined to be a non-asbestos material by sample analysis.

- The third group contains all previously identified materials, both asbestos and non-asbestos, which could not be confirmed to be present during the 2003 inspection. If the disposition of such material could be determined by the Baker field team, this information was noted in the comments section of Table 4.1.

Headings on Table 4.1 are defined as follows:

INSPECTION DATE - Date when this location was visited by a Baker field team to conduct the 2003 inspection.

BUILDING NUMBER - Identifies each building included in the report. If the date of construction was known, this information is presented in the parenthesis after the building number.

HOMO. MATRL. NO. (Homogeneous Material Number) - Numerical designation assigned to each homogeneous material that is uniform in color and texture, serves the same function, and was installed at the same time.

MATERIAL TYPE/MATERIAL DESCRIPTION - Brief description of the material, followed by information on distinguishing characteristics which may include function, size, color, shape, etc., if necessary.

AHERA CAT. (AHERA Category) - SACM-Surfacing Asbestos-Containing Material; TSIACM-Thermal System Insulation Asbestos-Containing Material; MACM-Miscellaneous Asbestos-Containing Material.

MATERIAL LOCATION(S) - Material locations as confirmed by the 2003 inspection. The material location(s) can be referenced to the floor plans in Appendix C of this report. The floor plans indicate room numbers and layouts as they existed at the time of the 2003 inspection. If a space within a building was not identified with a room number and materials were determined to be present in that space, the Baker field team assigned the space with a number and recorded this number on the floor plan. Material locations for those materials which could not be confirmed to be present at the time of the 2003 inspection are identified in those rooms where they are believed to have existed.

QTY. (Quantity) - Defined as linear footage (LF), square footage (SF), or number of each material contained in a homogeneous area.

SAMPLE INFORMATION - Provides information pertinent to the material sample as follows:

- **NUMBER** - A unique identification number assigned to each material sample collected.

- **DATE** - Collection date for the sample.

- **RESULT** - Analytical information provided by the laboratory. For those samples which were determined to have asbestos, the percent and type of asbestos is identified. The abbreviations used for the analytical results are:

AC = Actinolite CH = Chrysotile

AM = Amosite CR = Crocidolite

AN = Anthophyllite TR = Tremolite

ND = "None Detected" - No asbestos was detected in the sample

The analytical reports for all samples collected during the 2003 inspection are included in Appendix D of this report. Analytical reports for samples collected during previous inspections are included with the historical records for this location.

FRIABLE - A material is considered friable if, when dry, it may be crumbled, pulverized, or reduced to powder by hand pressure.

OVERALL CONDITION - Overall condition of the material is characterized as follows:

- **UNDAMAGED** - The material is in visibly good condition with no apparent damage.

- **DAMAGED** - The material exhibits some damaged areas. In the case of localized damage, less than 25% of the material exhibits damage. In the case of distributed damage, less than 10% of the material exhibits damage.

- **SIGNIFICANT DAMAGE** - The material exhibits extensive damage. In the case of localized damage, equal to or greater than 25% of the material exhibits extensive damage. In the case of distributed damage, equal to or greater than 10% of the material exhibits extensive damage.

If the material is damaged or significantly damaged, the distribution of the damage will be assessed as either Localized (LOCAL) or Distributed (DIST.).

ACCESS. (Accessibility) - A rating placed on a material which considers the accessibility for potential contact. It is ranked into one of three categories:

- **HIGH** - The material is readily accessible to building occupants.

- **MED** - The material is not so readily accessible to building occupants.

- **LOW** - The material is not easily accessible to building occupants.

EPA ASS. CAT. (EPA Assessment Category) - A damage classification from 1 to 7 as defined by the AHERA for known or suspect ACM:

1. Damaged or Significantly Damaged Thermal System Insulating ACM
2. Damaged Friable Surfacing ACM
3. Significantly Damaged Friable Surfacing ACM
4. Damaged or Significantly Damaged Friable Miscellaneous ACM
5. ACM with the Potential for Damage
6. ACM with a Potential for Significant Damage
7. Any Remaining Friable ACM or Friable Suspected ACM

N/A Any Remaining Material Assessed and Found to be Not Applicable to Any of the Seven Previous Categories

MANAGEMENT ACTION - The recommended action based on the EPA assessment category and on the judgement of the inspector based on activities of the occupants. For each asbestos material, at least one of the following management actions pertaining to all or portions of the material will be selected:

- **ENCLOSE** - Installation of an airtight, impermeable, permanent barrier around the ACM.

- **ENCAPSULATE** - Treatment of ACM with a penetrating or surface sealant in order to minimize the potential for fiber release.

- **O&M** - A program of work practices to maintain ACM in good condition, ensure clean-up of asbestos fibers previously released, and prevent further release by minimizing and controlling ACM disturbance or damage.

- **REMOVE** - Removal of ACM from a damaged area, a functional space, or a homogeneous area as indicated.

- **REPAIR** - Returning damaged ACM to an undamaged condition.

COMMENTS - Additional comments may be provided to further describe the location or condition of materials, clarify sample results, or amplify the recommended management action.

The following table columns contain information only if the material tested positive for asbestos and was confirmed to be present during the 2003 inspection:

- Friable
- Overall Condition
- Accessibility
- EPA Assessment Category
- Management Action

MANNHEIM AMERICAN ELEMENTARY SCHOOL
HE 3469

INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: 0697 (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
THE FOLLOWING ASBESTOS MATERIALS WERE IDENTIFIED IN BUILDING 0697 (Unknown)													
001	VINYL FLOOR TILE (1' X 1' BEIGE WITH WHITE AND BLACK SPECKS)	MACM	03, 04A, 121C, 122C, 123C, 124C, 125C, 128C, 129C, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	18,663 SF	11453 11457 11458 11475 11526 11531	04/05/88 04/05/88 04/05/88 04/05/88 04/05/88 04/05/88	2% CH 2% CH 2% CH 2% CH 2% CH 2% CH	NO	UNDAMAGED	HIGH	5	O&M	THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #036. THIS MATERIAL IS LOCATED BELOW EXISTING CARPET IN SOME LISTED LOCATIONS. PORTIONS OF THIS MATERIAL WERE ABATED DURING THE BUILDING RENOVATION PROJECT.
019	SHEET GASKET (2" - 6" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	MACM	HEAT DISTRIBUTION ROOM 1, HEAT DISTRIBUTION ROOM 2, MECHANICAL ROOM 1, MECHANICAL ROOM 2, MECHANICAL ROOM 3A, OLD BOILER ROOM	222 EA	11463 11465 11507	04/05/88 04/05/88 04/05/88	75% CH 60% CH 30% CH	NO	UNDAMAGED	LOW	5	O&M	
021	STALL PARTITIONS (GRAY CEMENT BOARD)	MACM	GIRLS TOILET G3, OLD BOILER ROOM, 09D	220 SF	11491 11513 11524	04/05/88 04/05/88 04/05/88	30% CH 20% CH 15% CH	NO	DAMAGED / LOCALIZED	HIGH	6	REMOVE O&M	ONE STALL PARTITION IN ROOM 09D IS DAMAGED AND NEEDS TO BE REMOVED. THERE IS ALSO ONE UNINSTALLED STALL PARTITION IN THE OLD BOILER ROOM THAT NEEDS TO BE REMOVED.
036	FLOOR ADHESIVE (BLACK, UNDER 1' X 1' BEIGE WITH WHITE AND BLACK SPECKS VINYL FLOOR TILE)	MACM	03, 04A, 121C, 122C, 123C, 124C, 125C, 128C, 129C, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	18,663 SF	0726-MAE-005A 0726-MAE-005B 0726-MAE-005C	07/26/89 07/26/89 07/26/89	3-5% CH 5% CH 3-5% CH	NO	UNDAMAGED	LOW	5	O&M	THIS IS THE ADHESIVE FOR MATERIAL #001. PORTIONS OF THIS MATERIAL WERE ABATED DURING THE BUILDING RENOVATION PROJECT.
037	FLOOR ADHESIVE (BLACK, UNDER GREEN RAISED DOT RUBBER FLOOR SHEETING)	MACM	CORRIDOR E, CORRIDOR H, STAIRWELL 1, 05 SUPPLY, 05A SUPPLY, 19, 20, 20A, 21, 22B, 22D, 22E, 27, 27B, 28, 28A, 29, 30, 30A, 31	7,426 SF	0726-MAE-024B 0726-MAE-024C	07/26/89 07/26/89	1-3% CH 1-3% CH	NO	UNDAMAGED	LOW	5	O&M	THIS IS THE ADHESIVE FOR MATERIAL #005.

MANNHEIM AMERICAN ELEMENTARY SCHOOL
HE 3469

INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: 0697 (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
039	WALL PLASTER (WHITE)	SACM	CORRIDOR F	250 SF	0726-MAE-009A	07/26/89	ND	NO	UNDAMAGED	HIGH	5	O&M	
					0726-MAE-009B	07/26/89	ND						
					0726-MAE-009C	07/26/89	1% CH						
					0501-MAE-039A	05/01/91	ND						
					0501-MAE-039B	05/01/91	ND						
					0501-MAE-039C	05/01/91	ND						
					0501-MAE-039D	05/01/91	ND						
					0501-MAE-039E	05/01/91	ND						
041	FLOOR ADHESIVE (BROWN GLUE ON BLACK ADHESIVE, UNDER GREEN VINYL FLOOR SHEETING)	MACM	CORRIDOR B2	4,576 SF	0501-MAE-041A	05/01/91	1-2% CH	NO	UNDAMAGED	LOW	5	O&M	AT THE TIME OF THE 1997, 2000, AND 2003 AHERA INSPECTIONS, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED DUE TO THE APPLICATION OF A NEW CONCRETE FLOORING PRODUCT. IT WAS ASSUMED THAT THIS MATERIAL STILL REMAINS WITHIN THE BUILDING.
					0501-MAE-041B	05/01/91	1-2% CH						
					0501-MAE-041C	05/01/91	<1-2% CH						
118	SHEET GASKET (4" - 6" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	MACM	09 LOBBY, 27B	18 EA	0703-MAE-118A	07/08/03	70% CH	NO	UNDAMAGED	LOW	5	O&M	THIS MATERIAL IS LOCATED WITHIN THE PIPE CHASE INSIDE 09 LOBBY.
					0703-MAE-118B	07/08/03	70% CH						
					0703-MAE-118C	07/08/03	70% CH						
120	ROPE GASKET (WHITE)	MACM	MECHANICAL ROOM 3A	1 EA	0703-MAE-120A	07/08/03	50% CH	NO	UNDAMAGED	LOW	5	O&M	THIS MATERIAL IS LOCATED ON PIPING AND IS USED AS A SPACER FOR CLAMPS.
					0703-MAE-120B	07/08/03	50% CH						
					0703-MAE-120C	07/08/03	50% CH						

MANNHEIM AMERICAN ELEMENTARY SCHOOL
HE 3469

INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: 0697 (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
THE FOLLOWING NON-ASBESTOS MATERIALS WERE IDENTIFIED IN BUILDING 0697 (Unknown)													
004	CAULK (WHITE)	MACM	EXTERIOR OF BUILDING	55 LF	11456	07/01/88	ND						
					11478	07/01/88	ND						
005	VINYL FLOOR SHEETING (GREEN, RAISED DOT RUBBER FLOOR SHEETING)	MACM	CORRIDOR E, CORRIDOR H, STAIRWELL 1, 05 SUPPLY, 05A SUPPLY, 19, 20, 20A, 21, 22B, 22D, 22E, 27, 27B, 28, 28A, 29, 30, 30A, 31	7,426 SF	11460	07/01/88	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #037.
					11499	07/01/88	ND						
006	FIRE DOOR LINING (WHITE)	MACM	HEAT DISTRIBUTION ROOM 1, HEAT DISTRIBUTION ROOM 2	2 EA	11467	07/01/88	ND						
007	DUCT INSULATION (BROWN CORKBOARD)	TSIACM	STAGE CRAWL SPACE	300 SF	11470	07/01/88	ND						THE JOINT COMPOUND FOR THIS MATERIAL IS MATERIAL #124.
					11471	07/01/88	ND						
					0703-MAE-007A	07/08/03	ND						
009	EXTERIOR PLASTERS (BEIGE, TROWELED-ON)	SACM	EXTERIOR OF BUILDING	185,000 SF	11485	07/01/88	ND						
					11522	07/01/88	ND						
					0703-MAE-009A	07/08/03	ND						
					0703-MAE-009B	07/08/03	ND						
					0703-MAE-009C	07/08/03	ND						
					0703-MAE-009D	07/08/03	ND						
					0703-MAE-009E	07/08/03	ND						
011	THERMAL PIPE INSULATION (6" - 8" DIAMETER, PLASTER OVER PAPER AND WOOL)	TSIACM	OLD BOILER ROOM	40 LF	11516	07/01/88	ND						
					11519	07/01/88	ND						
					11520	07/01/88	ND						
					11521	07/01/88	ND						

INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: 0697 (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
013	FIRE DOOR LINING (PLASTER LINING WITHIN METAL DOOR)	MACM	101A1	1 EA	11474	07/01/88	ND						
017	WALLBOARD (1/2" THICK, GRAY PAPER, WHITE CORE)	MACM	BASEMENT STORAGE ROOM, STORAGE 5, 03, 225CT1, 225CT2, 235DT1, 235DT2	240 SF	11468	07/01/88	ND						THE JOINT COMPOUND FOR THIS MATERIAL IS MATERIAL #096.
018	CEILING ROUGH FINISH	SACM	BASEMENT STORAGE ROOM, HEAT DISTRIBUTION ROOM 1, HEAT DISTRIBUTION ROOM 2, STORAGE 5	2,500 SF	11464	07/01/88	ND						THIS MATERIAL IS LOCATED ON CONCRETE CEILING AND COLUMNS.
					11466	07/01/88	ND						
					11469	07/01/88	ND						
					0301-MAE-018A	03/12/01	ND						
					0301-MAE-018B	03/12/01	ND						
023	STAGE CURTAINS (BLACK)	MACM	09 STAGE	725 SF	11493	07/01/88	ND						
025	VINYL FLOOR TILE (10" X 10" BLACK)	MACM	TECHNICAL SUPPORT 1, TECHNICAL SUPPORT 2, TECHNICAL SUPPORT STORAGE A	825 SF	11488	07/01/88	ND						THE 2000 AHERA TRIENNIAL SURVEY TEAM COULD NOT SAMPLE THE ASSOCIATED FLOOR ADHESIVE WITHOUT EXTENSIVE DAMAGE TO THIS FLOOR MATERIAL, THUS, THE FLOOR ADHESIVE FOR THIS MATERIAL WAS UNOBTAINABLE.
					11489	07/01/88	ND						
					11496	07/01/88	ND						
026	FIRE DAMPERS (WHITE)	MACM	MAIN CORRIDOR, MECHANICAL ROOM 1, MECHANICAL ROOM 2, MECHANICAL ROOM 3A, TECHNICAL SUPPORT 2, 22C, 22D	7 EA	11497	07/01/88	ND						THIS MATERIAL IS LOCATED IN THE AIR DUCTS.
					11510	07/01/88	ND						
					11511	07/01/88	ND						

INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: 0697 (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
027	CEILING TILES (2' X 2' WHITE, TEXTURED, SUSPENDED)	MACM	J5, T2, T3, 02, 02A, 02B, 02C, 03, 04, 04A, 04B, 14, 14A, 15, 17, 18	1,400 SF	11500	07/01/88	ND						
					11501	07/01/88	ND						
					11505	07/01/88	ND						
029	VINYL FLOOR TILE (2' X 2' GREEN)	MACM	04	375 SF	11503	07/01/88	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #072.
					11534	07/01/88	ND						
032	HEAT SHIELDS (GRAY FIRE PROOF PANELS)	MACM	MECHANICAL ROOM 1, MECHANICAL ROOM 2	4 EA	11508	07/01/88	ND						THIS MATERIAL IS LOCATED WHERE THE DUCTWORK PENETRATES THE INSIDE WALLS.
					11509	07/01/88	ND						
					11512	07/01/88	ND						
042	VINYL FLOOR SHEETING (3' X 3' SQUARES, GRAY WITH WHITE STREAKS)	MACM	07 CAFETERIA	5,250 SF	0194-MAE-042A	01/17/94	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #044.
					0194-MAE-042B	01/17/94	ND						
					0194-MAE-042C	01/17/94	ND						
043	VINYL FLOOR SHEETING (BLACK)	MACM	09 STAGE, 09B	1,200 SF	0194-MAE-043A	01/17/94	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #044.
					0194-MAE-043B	01/17/94	ND						
					0194-MAE-043C	01/17/94	ND						
044	FLOOR ADHESIVE (TAN, UNDER GRAY WITH WHITE STREAKS AND BLACK VINYL FLOOR SHEETINGS)	MACM	07 CAFETERIA, 09 STAGE, 09B	6,450 SF	0194-MAE-044A	01/17/94	ND						THIS IS THE ADHESIVE FOR MATERIALS #042 AND #043.
					0194-MAE-044B	01/17/94	ND						
					0194-MAE-044C	01/17/94	ND						
045	FLOOR ADHESIVE (TAN, UNDER BROWN CARPET)	MACM	14, 19A, 128C, 232D	4,925 SF	0194-MAE-045A	01/17/94	ND						
					0194-MAE-045B	01/17/94	ND						
					0194-MAE-045C	01/17/94	ND						

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TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
047	CEILING TILES (2' X 2' WHITE, FISSURED, SUSPENDED)	MACM	34	150 SF	0194-MAE-047A	01/17/94	ND						
					0194-MAE-047B	01/17/94	ND						
					0194-MAE-047C	01/17/94	ND						
049	FLOOR ADHESIVE (YELLOW, UNDER BROWN, ORANGE, BLUE, LIGHT GREEN, AND GRAY CARPETS)	MACM	TECHNICAL SUPPORT 1, TECHNICAL SUPPORT 2, 01, 02, 02A, 02B, 02C, 02D, 11, 32, 33, 121C, 122C, 123C, 124C, 125C, 129C, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	53,770 SF	0726-MAE-006A	08/11/89	ND						THIS IS THE ADHESIVE FOR MATERIAL #067.
					0726-MAE-006B	08/11/89	ND						
					0726-MAE-006C	08/11/89	ND						

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HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
050	WALL AND CEILING PLASTER (1/16" THICK, SMOOTH SURFACE, WHITE CORE)	SACM	B1, B2, B3, B4, CORRIDOR A1, CORRIDOR A2, CORRIDOR B1, CORRIDOR B2, CORRIDOR C1, CORRIDOR C2, CORRIDOR D1, CORRIDOR D2, CORRIDOR H, GIRLS TOILET G3, J4, J5, K1, K2, K3, K4, MAIN CORRIDOR, STAIRWELL 1, STAIRWELL 10, STAIRWELL 11, STAIRWELL 12, STAIRWELL 13, STAIRWELL 14, STAIRWELL 2, STAIRWELL 3, STAIRWELL 4, STAIRWELL 5, STAIRWELL 6, STAIRWELL 7, STAIRWELL 8, STAIRWELL 9, STORAGE 6, STORAGE A3, STORAGE B3, STORAGE C1, STORAGE C2, STORAGE C3, T21, T22, TECHNICAL SUPPORT 1, TECHNICAL SUPPORT STORAGE A, TECHNICAL SUPPORT STORAGE B, 01, 02, 02A, 02B, 02C, 02D, 03, 04, 04A, 04B, 05 SUPPLY, 05A SUPPLY, 07 CAFETERIA, 08, 09 LOBBY, 09 STAGE, 09A, 09B, 09C, 09D, 11, 14, 14A, 15, 17, 18, 19, 19A, 20, 20A, 21, 22 MEDIA CENTER, 22A, 22B, 22C, 22D, 22E, 23, 24, 25, 26, 27, 27B, 28, 28A, 29, 30, 30A, 31, 31A, 32, 33, 34, 101A, 101A1, 102A, 103A, 104A, 105A, 106A, 107A, 108A, 108A1, 109A, 111B, 111B1, 112B, 113B, 114B, 115B, 116B, 117B, 118B, 118B1, 119A, 119B, 121C, 122C, 123C, 124C, 125C, 126C, 127C, 128C, 129C, 131D, 131DA, 132D, 132DB, 134D, 134DT1, 134DT2, 135D, 135DT1, 135DT2, 138D, 138DT1, 138DT2, 139D, 143ES, 201A, 202A, 203A, 204A, 205A, 205AT1, 205AT2, 206A, 207A, 208A, 209A, 211B, 212B, 213B, 214B, 215B, 215BT1, 215BT2, 216B, 217B, 218B, 219B, 221C, 222C, 223C, 224C, 225C, 226C, 227C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 236D, 237D, 238D, 239D, 131D1, 138D1, 139D1	93,600 SF	0726-MAE-007A	08/11/89	ND						
					0726-MAE-007B	08/11/89	ND						
					0726-MAE-007C	08/11/89	ND						
					0301-MAE-050D	03/09/01	ND						
					0301-MAE-050E	03/09/01	ND						
					0301-MAE-050F	03/09/01	ND						
					0301-MAE-050G	03/09/01	ND						
051	ASPHALTIC ROOFING MATERIALS (BLACK)	MACM	ROOF	45,000 SF	0726-MAE-008A	08/11/89	ND						
					0726-MAE-008B	08/11/89	ND						
					0726-MAE-008C	08/11/89	ND						

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TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
052	SUBFLOOR MATERIAL (GRAY CONCRETE UNDERLAYMENT)	MACM	CORRIDOR F	500 SF	0726-MAE-010A	08/11/89	ND						THIS MATERIAL IS LOCATED BELOW EXISTING FLOORING MATERIALS.
					0726-MAE-010B	08/11/89	ND						
					0726-MAE-010C	08/11/89	ND						
053	SUBFLOOR MATERIAL (GRAY CONCRETE UNDERLAYMENT)	MACM	CORRIDOR F	500 SF	0726-MAE-011A	08/11/89	ND						THIS MATERIAL IS LOCATED BELOW EXISTING FLOORING MATERIALS.
					0726-MAE-011B	08/11/89	ND						
					0726-MAE-011C	08/11/89							
054	FLOOR ADHESIVE (YELLOW, UNDER CREAM WITH DARK STREAKS VINYL FLOOR SHEETING)	MACM	141E, 143E, 143EK	1,900 SF	0726-MAE-012A	08/11/89	ND						THIS IS THE ADHESIVE FOR MATERIAL #055.
					0726-MAE-012B	08/11/89	ND						
					0726-MAE-012C	08/11/89	ND						
055	VINYL FLOOR SHEETING (CREAM WITH DARK STREAKS)	MACM	141E, 143E, 143EK	1,900 SF	0726-MAE-013A	08/09/89	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #054.
					0726-MAE-013B	08/09/89	ND						
					0726-MAE-013C	08/09/89	ND						
056	CARPET (BEIGE)	MACM	141E, 143E	875 SF	0726-MAE-014A	08/09/89	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #057.
					0726-MAE-014B	08/09/89	ND						
					0726-MAE-014C	08/09/89	ND						
057	FLOOR ADHESIVE (TAN, UNDER BEIGE CARPET)	MACM	141E, 143E	875 SF	0726-MAE-015A	08/09/89	ND						THIS IS THE ADHESIVE FOR MATERIAL #056.
					0726-MAE-015B	08/09/89	ND						
					0726-MAE-015C	08/09/89	ND						
058	WALL PLASTER (WHITE)	SACM	CORRIDOR E, 141E, 143E	4,000 SF	0726-MAE-016A	08/09/89	ND						
					0726-MAE-016B	08/09/89	ND						
					0726-MAE-016C	08/09/89	ND						
					0301-MAE-058D	03/12/01	ND						
					0301-MAE-058E	03/12/01	ND						

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TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
059	FABRIC WALL COVERING (DECORATIVE WALL COATING)	MACM	32, 33	460 SF	0726-MAE-017A	08/09/89	ND						
					0726-MAE-017B	08/09/89	ND						
					0726-MAE-017C	08/09/89	ND						
060	CARPET (GREEN)	MACM	19, 20, 21, 22 MEDIA CENTER, 22A, 22C, 23, 24, 25, 26, 28, 29, 30, 31, 31A	7,900 SF	0726-MAE-018A	08/09/89	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #061.
					0726-MAE-018B	08/09/89	ND						
					0726-MAE-018C	08/09/89	ND						
061	FLOOR ADHESIVE (YELLOW, UNDER GREEN CARPET)	MACM	19, 20, 21, 22 MEDIA CENTER, 22A, 22C, 23, 24, 25, 26, 28, 29, 30, 31, 31A	7,900 SF	0726-MAE-019A	08/09/89	ND						THIS IS THE ADHESIVE FOR MATERIAL #060.
					0726-MAE-019B	08/09/89	ND						
					0726-MAE-019C	08/09/89	ND						
067	CARPET (BROWN, ORANGE, BLUE, LIGHT GREEN, AND GRAY)	MACM	TECHNICAL SUPPORT 1, TECHNICAL SUPPORT 2, 01, 02, 02A, 02B, 02C, 02D, 11, 32, 33, 121C, 122C, 123C, 124C, 125C, 128C, 129C, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	54,600 SF	0726-MAE-023A	08/09/89	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #049. NO ADHESIVE IS ASSOCIATED WITH THIS MATERIAL IN ROOM 128C.
					0726-MAE-023B	08/09/89	ND						
					0726-MAE-023C	08/09/89	ND						
068	VINYL FLOOR SHEETING (PURPLE)	MACM	09 GYMNASIUM	4,310 SF	1196-MAE-068A	11/01/96	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #084.
					1196-MAE-068B	11/01/96	ND						
					1196-MAE-068C	11/01/96	ND						
070	FLOOR ADHESIVE (YELLOW, UNDER 20" X 20" BLUE WITH VARIOUS COLORED SPECKS RUBBER FLOOR SQUARES)	MACM	B1, B2, B3, B4, CORRIDOR A1, CORRIDOR A2, CORRIDOR B1, CORRIDOR B2, CORRIDOR C1, CORRIDOR C2, CORRIDOR D1, CORRIDOR D2, CORRIDOR F, MAIN CORRIDOR, 09 LOBBY	24,070 SF	1196-MAE-070A	11/01/96	ND						
					1196-MAE-070B	11/01/96	ND						
					1196-MAE-070C	11/01/96	ND						
071	SINK COATING (BLACK PAD)	MACM	B1, B2, B3, B4, 19, 20, 21, 22B, 28, 29, 30, 132D, 134D	14 EA	1196-MAE-071A	11/01/96	ND						
					1196-MAE-071B	11/01/96	ND						
					1196-MAE-071C	11/01/96	ND						

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HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
072	FLOOR ADHESIVE (YELLOW, UNDER 2' X 2' GREEN VINYL FLOOR TILE)	MACM	04	375 SF	1196-MAE-072A	11/01/96	ND						THIS IS THE ADHESIVE FOR MATERIAL #029.
					1196-MAE-072B	11/01/96	ND						
					1196-MAE-072C	11/01/96	ND						
073	FLOOR ADHESIVE (YELLOW, UNDER BLUE AND PURPLE RAISED DOT RUBBER FLOORING)	MACM	STAIRWELL 10, STAIRWELL 11, STAIRWELL 12, STAIRWELL 13, STAIRWELL 14, STAIRWELL 2, STAIRWELL 3, STAIRWELL 4, STAIRWELL 5, STAIRWELL 6, STAIRWELL 7, STAIRWELL 8, STAIRWELL 9	5,600 SF	1196-MAE-073A	11/01/96	ND						
					1196-MAE-073B	11/01/96	ND						
					1196-MAE-073C	11/01/96	ND						
074	FLEX CONNECTOR (RED CLOTH)	MACM	MECHANICAL ROOM 3B	1 EA	1196-MAE-074A	11/01/96	ND						
					1196-MAE-074B	11/01/96	ND						
					1196-MAE-074C	11/01/96	ND						
084	FLOOR ADHESIVE (YELLOW, UNDER PURPLE VINYL FLOOR SHEETING)	MACM	09 GYMNASIUM	4,310 SF	1196-MAE-084A	11/05/96	ND						THIS IS THE ADHESIVE FOR MATERIAL #068.
					1196-MAE-084B	11/05/96	ND						
					1196-MAE-084C	11/05/96	ND						
096	JOINT COMPOUND (WHITE)	MACM	BASEMENT STORAGE ROOM, STORAGE 5, 03, 225CT1, 225CT2, 235DT1, 235DT2	24 SF	0301-MAE-096A	03/09/01	ND						THIS IS THE JOINT COMPOUND FOR MATERIAL #017.
					0301-MAE-096B	03/09/01	ND						
					0301-MAE-096C	03/09/01	ND						
097	THERMAL PIPE INSULATION (8" DIAMETER, BLACK PAPER COVER)	TSIACM	STAGE CRAWL SPACE	40 LF	0301-MAE-097A	03/09/01	ND						
					0301-MAE-097B	03/09/01	ND						
					0301-MAE-097C	03/09/01	ND						
098	JOINT COMPOUND (WHITE)	MACM	TECHNICAL SUPPORT 1, TECHNICAL SUPPORT 2	60 SF	0301-MAE-098A	03/09/01	ND						THIS IS THE JOINT COMPOUND FOR MATERIAL #101.
					0301-MAE-098B	03/09/01	ND						
					0301-MAE-098C	03/09/01	ND						

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					NUMBER	DATE	RESULT						
099	CEILING TILES (2' X 2' WHITE, PINHOLE, SUSPENDED)	MACM	STAIRWELL 14, TECHNICAL SUPPORT 1, TECHNICAL SUPPORT 2	834 SF	0301-MAE-099A	03/09/01	ND						
					0301-MAE-099B	03/09/01	ND						
					0301-MAE-099C	03/09/01	ND						
100	FLOOR ADHESIVE (YELLOW, UNDER BLUE CARPET)	MACM	B1, B2, B3, B4, 111B, 112B, 118B, 119A, 119B, 211B, 212B, 213B, 214B, 215B, 218B, 219B	11,950 SF	0301-MAE-100A	03/09/01	ND						
					0301-MAE-100B	03/09/01	ND						
					0301-MAE-100C	03/09/01	ND						
101	WALLBOARD (WHITE)	MACM	TECHNICAL SUPPORT 1, TECHNICAL SUPPORT 2	600 SF	0301-MAE-101A	03/12/01	ND						THE JOINT COMPOUND FOR THIS MATERIAL IS MATERIAL #098.
					0301-MAE-101B	03/12/01	ND						
					0301-MAE-101C	03/12/01	ND						
104	WALLBOARD (WHITE)	MACM	04A	150 SF	0301-MAE-104A	03/12/01	ND						THE JOINT COMPOUND FOR THIS MATERIAL IS MATERIAL #105.
					0301-MAE-104B	03/12/01	ND						
					0301-MAE-104C	03/12/01	ND						
105	JOINT COMPOUND (WHITE)	MACM	04A	15 SF	0301-MAE-105A	03/12/01	ND						THIS IS THE JOINT COMPOUND FOR MATERIAL #104.
					0301-MAE-105B	03/12/01	ND						
					0301-MAE-105C	03/12/01	ND						
106	VINYL FLOOR SHEETING (BLUE MARBLE PATTERN)	MACM	131D, 131DA, 132D, 132DA, 132DB, 134D, 134DA, 135D, 135DA, 135DB, 138D, 138DA, 138DB, 139D	5,614 SF	0703-MAE-106A	07/04/03	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #107.
					0703-MAE-106B	07/04/03	ND						
					0703-MAE-106C	07/04/03	ND						
107	FLOOR ADHESIVE (WHITE, UNDER BLUE MARBLE PATTERN VINYL FLOOR SHEETING)	MACM	131D, 131DA, 132D, 132DA, 132DB, 134D, 134DA, 135D, 135DA, 135DB, 138D, 138DA, 138DB, 139D	5,614 SF	0703-MAE-107A	07/04/03	ND						THIS IS THE ADHESIVE FOR MATERIAL #106.
					0703-MAE-107B	07/04/03	ND						
					0703-MAE-107C	07/04/03	ND						

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					NUMBER	DATE	RESULT						
108	COVE BASE ADHESIVE (WHITE, UNDER 2" GRAY PLASTIC COVE BASE)	MACM	131D, 131DA, 132D, 135D, 135DA, 138D, 138DA, 139D	410 LF	0703-MAE-108A	07/04/03	ND						
					0703-MAE-108B	07/04/03	ND						
					0703-MAE-108C	07/04/03	ND						
109	ELECTRICAL WIRE INSULATION (WHITE)	MACM	OLD BOILER ROOM	15 LF	0703-MAE-109A	07/08/03	ND						THIS MATERIAL IS LOCATED IN THE LOWER LEVEL OF THE OLD BOILER ROOM.
					0703-MAE-109B	07/08/03	ND						
					0703-MAE-109C	07/08/03	ND						
110	CEILING TILES (2' X 2' WHITE, PINHOLE, SUSPENDED)	MACM	131D, 131DA, 131DT1, 131DT2, 132D, 132DA, 132DB, 132DT1, 132DT2, 133D, 134D, 134DA, 134DT1, 134DT2, 135D, 135DA, 135DB, 135DT1, 135DT2, 138D, 138DA, 138DB, 138DT1, 138DT2, 139D	5,924 SF	0703-MAE-110A	07/08/03	ND						
					0703-MAE-110B	07/08/03	ND						
					0703-MAE-110C	07/08/03	ND						
111	WALLBOARD (1/2" THICK, GREEN PAPER, WHITE CORE)	MACM	131DT1, 131DT2, 132DT1, 132DT2, 134DT1, 134DT2, 135DT1, 135DT2, 138DA, 138DB, 138DT1, 138DT2	1,640 SF	0703-MAE-111A	07/08/03	ND						THE JOINT COMPOUND FOR THIS MATERIAL IS MATERIAL #112. THIS MATERIAL IS LOCATED BEHIND CERAMIC TILE.
					0703-MAE-111B	07/08/03	ND						
					0703-MAE-111C	07/08/03	ND						
112	JOINT COMPOUND (WHITE)	MACM	131DT1, 131DT2, 132DT1, 132DT2, 134DT1, 134DT2, 135DT1, 135DT2, 138DA, 138DB, 138DT1, 138DT2	164 SF	0703-MAE-112A	07/08/03	ND						THIS IS THE JOINT COMPOUND FOR MATERIAL #111.
					0703-MAE-112B	07/08/03	ND						
					0703-MAE-112C	07/08/03	ND						
113	WALLBOARD (1/2" THICK, GRAY PAPER, WHITE CORE)	MACM	05 SUPPLY, 05A SUPPLY, 131DA, 132D, 132DA, 132DB, 133D, 134D, 134DA, 135DB, 138DA, 139D	2,600 SF	0703-MAE-113A	07/08/03	ND						THE JOINT COMPOUND FOR THIS MATERIAL IS MATERIAL #116.
					0703-MAE-113B	07/08/03	ND						
					0703-MAE-113C	07/08/03	ND						
114	CEILING TILES (CARDBOARD-LIKE, PEGBOARD PATTERN, MECHANICALLY FASTENED)	MACM	121C, 133D, 134D, 135D, 139D, 232D, 233D, 234D, 235D, 238D, 239D	1,194 SF	0703-MAE-114A	07/08/03	ND						THIS MATERIAL IS LOCATED ABOVE THE EXISTING CEILING MATERIAL ON THE WINDOW SIDE OF EACH ROOM.
					0703-MAE-114B	07/08/03	ND						
					0703-MAE-114C	07/08/03	ND						

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					NUMBER	DATE	RESULT						
115	CEMENT FLOORING (GRAY, UNDER BLUE MARBLE PATTERN FLOOR SHEETING)	MACM	131DA, 135DA, 138D, 138DA, 139D	1,768 SF	0703-MAE-115A	07/08/03	ND						
					0703-MAE-115B	07/08/03	ND						
					0703-MAE-115C	07/08/03	ND						
116	JOINT COMPOUND (WHITE)	MACM	05 SUPPLY, 05A SUPPLY, 131DA, 132D, 132DA, 132DB, 133D, 134D, 134DA, 135DB, 138DA, 139D	260 SF	0703-MAE-116A	07/08/03	ND						THIS IS THE JOINT COMPOUND FOR MATERIAL #113.
					0703-MAE-116B	07/08/03	ND						
					0703-MAE-116C	07/08/03	ND						
117	FLOOR ADHESIVE (TAN, UNDER BLUE CARPET)	MACM	133D	324 SF	0703-MAE-117A	07/08/03	ND						
					0703-MAE-117B	07/08/03	ND						
					0703-MAE-117C	07/08/03	ND						
119	FLOOR ADHESIVE (TAN, UNDER 2' X 2' LAVANDER RUBBER FLOOR TILES)	MACM	101A, 102A, 103A, 104A, 105A, 108A, 109A, 201A, 202A, 203A, 204A, 205A, 208A, 209A	1,848 SF	0703-MAE-119A	07/08/03	ND						
					0703-MAE-119B	07/08/03	ND						
					0703-MAE-119C	07/08/03	ND						
121	CEILING INSULATION (TAN, CELLULOSE)	MACM	121C, 133D, 134D, 135D, 139D, 232D, 233D, 234D, 235D, 238D, 239D	1,194 SF	0703-MAE-121A	07/08/03	ND						THIS MATERIAL IS LOCATED ABOVE THE EXISTING CEILING MATERIAL ON THE WINDOW SIDE OF EACH ROOM.
					0703-MAE-121B	07/08/03	ND						
					0703-MAE-121C	07/08/03	ND						
122	ASPHALTIC VAPOR BARRIER (BLACK)	MACM	121C, 133D, 134D, 135D, 139D, 232D, 233D, 234D, 235D, 238D, 239D	1,194 SF	0703-MAE-122A	07/08/03	ND						THIS MATERIAL IS LOCATED ABOVE THE EXISTING CEILING MATERIAL ON THE WINDOW SIDE OF EACH ROOM.
					0703-MAE-122B	07/08/03	ND						
					0703-MAE-122C	07/08/03	ND						
123	FLOOR ADHESIVE (TAN, UNDER LIGHT BLUE WITH DARK BLUE STREAKS RUBBER FLOOR SHEETING)	MACM	TECHNICAL SUPPORT 1	60 SF	0703-MAE-123A	07/08/03	ND						
					0703-MAE-123B	07/08/03	ND						
					0703-MAE-123C	07/08/03	ND						

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INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: 0697 (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
124	JOINT COMPOUND (GRAY, HARD)	MACM	STAGE CRAWL SPACE	80 LF	0703-MAE-124A	07/08/03	ND						THIS IS THE JOINT COMPOUND FOR MATERIAL #007.
					0703-MAE-124B	07/08/03	ND						
					0703-MAE-124C	07/08/03	ND						
125	FLOOR ADHESIVE (BROWN, UNDER GRAY ANTI-STATIC CARPET)	MACM	113B, 114B, 115B	2,550 SF	0703-MAE-125A	07/08/03	ND						
					0703-MAE-125B	07/08/03	ND						
					0703-MAE-125C	07/08/03	ND						
126	FLOOR ADHESIVE (YELLOW, UNDER 2' X 2' TAN CARPET SQUARES)	MACM	19A	720 SF	0703-MAE-126A	07/08/03	ND						THIS MATERIAL IS LOCATED ON ALL FOUR WALLS OF THE ROOM.
					0703-MAE-126B	07/08/03	ND						
					0703-MAE-126C	07/08/03	ND						

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INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: 0697 (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
THE FOLLOWING MATERIALS COULD NOT BE LOCATED IN BUILDING 0697 (Unknown)													
012	STALL PARTITIONS (CEMENT BOARD PARTITIONS)	MACM	108A1	90 SF	ASSUMED ACM	04/05/88							AT THE TIME OF THE 1994 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					0726-MAE-002A	07/26/89	15% CH						
014	HEAT SHIELDS	MACM	STORAGE C3	9 SF	11476	04/05/88	45% CH						AT THE TIME OF THE 1994 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					0726-MAE-004A	07/26/89	ND						
015	ELECTRICAL WIRE INSULATION (KILN WIRE)	MACM	STORAGE C3	4 SF	11477	04/05/88	ND						AT THE TIME OF THE 1994 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					0726-MAE-003A	07/26/89	20-25% CH						
028	WINDOWSILLS (BLACK CEMENT)	MACM	MAIN CORRIDOR	144 SF	11502	04/05/88	10% CH						AT THE TIME OF THE 1997 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					11523	04/05/88	10% CH						
075	ROPE GASKET (WHITE CLOTH)	MACM	HEAT DISTRIBUTION ROOM 1	11 LF	1196-MAE-075A	11/01/96	70-75% CH						AT THE TIME OF THE 2000 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					1196-MAE-075B	11/01/96	70-75% CH						
					1196-MAE-075C	11/01/96	70-75% CH						

INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: 0697 (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
THE FOLLOWING MATERIALS COULD NOT BE LOCATED IN BUILDING 0697 (Unknown)													
002	CEILING TILES (CARDBOARD-LIKE, PEGBOARD PATTERN, GLUED-ON)	MACM	121C, 122C, 123C, 124C, 125C, 128C, 129C, 131D, 132D, 133D, 134D, 135D, 138D, 139D, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	6,100 SF	11454	07/01/88	ND						AT THE TIME OF THE 1997 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					11459	07/01/88	ND						
					11480	07/01/88	ND						
					11530	07/01/88	ND						
008	FLEX CONNECTOR (BLACK CLOTH)	MACM	MECHANICAL ROOM 3A	3 SF	11472	07/01/88	ND						AT THE TIME OF THE 2000 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
010	THERMAL PIPE INSULATION (6" - 8" DIAMETER, PLASTER OVER PAPER AND WOOL)	TSIACM	MECHANICAL ROOM 3A	6 LF	11473	07/01/88	ND						AT THE TIME OF THE 2003 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					0301-MAE-010A	03/12/01	ND						
					0301-MAE-010B	03/12/01	ND						
016	WALLBOARD (WHITE)	MACM	CORRIDOR B1	42 SF	11462	07/01/88	ND						AT THE TIME OF THE 2000 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					11533	07/01/88	ND						
020	WALLBOARD (WHITE)	MACM	09 GYMNASIUM	1,000 SF	11490	07/01/88	ND						AT THE TIME OF THE 2000 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					11498	07/01/88	ND						
					11537	07/01/88	ND						
024	CEILING TILES (RAISED, MOTTLED PATTERN, SUSPENDED)	MACM	08	40 SF	11494	07/01/88	ND						AT THE TIME OF THE 1997 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					11495	07/01/88	ND						
030	CEMENT CEILING PANELS (GRAY)	MACM	J5, T2, T3, 01, 03, 04	1,750 SF	11504	07/01/88	ND						AT THE TIME OF THE 2003 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					11506	07/01/88	ND						
					11529	07/01/88	ND						

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BUILDING NUMBER: 0697 (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
031	WALL AND CEILING PLASTER (TROWELED-ON CEMENT)	SACM	CORRIDOR E	360 SF	11527	07/01/88	ND						AT THE TIME OF THE 2000 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					11528	07/01/88	ND						
033	FABRIC WALL COVERING (TEXTURED PAPER, GRAY CORE)	MACM	BASEMENT STORAGE ROOM	0 SF	11514	07/01/88	ND						AT THE TIME OF THE 1997 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
034	BREECHING/STACK INSULATION (BRICK)	TSIACM	OLD BOILER ROOM	1,400 SF	11517	07/01/88	ND						AT THE TIME OF THE 2000 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					11518	07/01/88	ND						
035	WALLBOARD (WHITE CHALKY CORE)	MACM	09 GYMNASIUM	30 SF	11535	07/01/88	ND						AT THE TIME OF THE 2000 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
038	FLOOR ADHESIVE (BROWN GLUE ON BLACK ADHESIVE, UNDER GREEN FLOOR SHEETING)	MACM	CORRIDOR A2	4,576 SF	0726-MAE-024A	07/26/89	ND						AT THE TIME OF THE 2000 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					0501-MAE-038A	05/01/91	<1% CH						
					0501-MAE-038B	05/01/91	<1% CH						
					0501-MAE-038C	05/01/91	<1% CH						
046	FLOOR ADHESIVE (TAN, UNDER CARPET)	MACM	34	150 SF	0194-MAE-046A	01/17/94	ND						AT THE TIME OF THE 2000 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					0194-MAE-046B	01/17/94	ND						
					0194-MAE-046C	01/17/94	ND						
064	WALL PLASTER (WHITE)	SACM	CORRIDOR H	20,070 SF	0726-MAE-022A	08/09/89	ND						AT THE TIME OF THE 2000 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					0726-MAE-022C	08/09/89	ND						

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INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: 0697 (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
065	VINYL FLOOR SHEETING	MACM	CORRIDOR F	800 SF	0726-MAE-025A	08/09/89	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #066. AT THE TIME OF THE 1997 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					0726-MAE-025B	08/09/89	ND						
					0726-MAE-025C	08/09/89	ND						
066	FLOOR ADHESIVE (UNDER VINYL FLOOR SHEETING)	MACM	CORRIDOR F	800 SF	0726-MAE-026A	08/11/89	ND						THIS IS THE ADHESIVE FOR MATERIAL #065. AT THE TIME OF THE 1997 AHERA INSPECTION, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED.
					0726-MAE-026B	08/11/89	ND						
					0726-MAE-026C	08/11/89	ND						

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INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: 0697K (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
THE FOLLOWING ASBESTOS MATERIALS WERE IDENTIFIED IN BUILDING 0697K (Unknown)													
128	SHEET GASKET (4" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	MACM	MR	4 EA	0703-MAE-128A	07/08/03	70% CH	NO	UNDAMAGED	LOW	5	O&M	
					0703-MAE-128B	07/08/03	70% CH						
					0703-MAE-128C	07/08/03	65% CH						

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INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: 0697K (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
THE FOLLOWING NON-ASBESTOS MATERIALS WERE IDENTIFIED IN BUILDING 0697K (Unknown)													
062	VINYL FLOOR SHEETING (DARK BLUE, RAISED DOT)	MACM	K1A, K2B, K3A, K4B, K5A, K6B, K7A, K8B	423 SF	0726-MAE-020A	08/09/89	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #063.
					0726-MAE-020B	08/09/89	ND						
					0726-MAE-020C	08/09/89	ND						
063	FLOOR ADHESIVE (YELLOW, UNDER DARK BLUE, RAISED DOT VINYL FLOOR SHEETING)	MACM	K1A, K2B, K3A, K4B, K5A, K6B, K7A, K8B	423 SF	0726-MAE-021A	08/09/89	ND						THIS IS THE ADHESIVE FOR MATERIAL #062.
					0726-MAE-021B	08/09/89	ND						
					0726-MAE-021C	08/09/89	ND						
069	VINYL FLOOR SHEETING (LIGHT BLUE)	MACM	ENTRY, K1, K1B, K2, K2A, K3, K3B, K4, K4A, K5, K5B, K6, K6A, K7, K7B, K8, K8A	7,270 SF	1196-MAE-069A	11/01/96	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #085.
					1196-MAE-069B	11/01/96	ND						
					1196-MAE-069C	11/01/96	ND						
085	FLOOR ADHESIVE (YELLOW, UNDER LIGHT BLUE VINYL FLOOR SHEETING)	MACM	ENTRY, K1, K1B, K2, K2A, K3, K3B, K4, K4A, K5, K5B, K6, K6A, K7, K7B, K8, K8A	7,270 SF	1196-MAE-085A	11/05/96	ND						THIS IS THE ADHESIVE FOR MATERIAL #069.
					1196-MAE-085B	11/05/96	ND						
					1196-MAE-085C	11/05/96	ND						
086	WALL PLASTER (WHITE, SMOOTH SURFACE)	SACM	CORRIDOR K, E1, E2, ENTRY, K1, K1A, K1B, K2, K2A, K2B, K3, K3A, K3B, K4, K4A, K4B, K5, K5A, K5B, K6, K6A, K6B, K7, K7A, K7B, K8, K8A, K8B, K9, MR	14,560 SF	0726-MAE-022B	08/09/89	ND						
					0301-MAE-086A	03/01/01	ND						
					0301-MAE-086B	03/13/01	ND						
					0301-MAE-086C	03/13/01	ND						
					0301-MAE-086D	03/13/01	ND						
					0301-MAE-086E	03/13/01	ND						
					0301-MAE-086F	03/13/01	ND						
102	FLOOR ADHESIVE (YELLOW, UNDER GRAY CARPET)	MACM	CORRIDOR K	1,350 SF	0301-MAE-102A	03/12/01	ND						
					0301-MAE-102B	03/12/01	ND						
					0301-MAE-102C	03/12/01	ND						

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BUILDING NUMBER: 0697K (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
103	FLOOR ADHESIVE (YELLOW, UNDER BROWN CARPET)	MACM	K9	120 SF	0301-MAE-103A	03/12/01	ND						
					0301-MAE-103B	03/12/01	ND						
					0301-MAE-103C	03/12/01	ND						
127	SINK COATING (BLACK PAD)	MACM	K1, K2, K3, K4, K5, K6, K7, K8, K9	9 EA	0703-MAE-127A	07/08/03	ND						
					0703-MAE-127B	07/08/03	ND						
					0703-MAE-127C	07/08/03	ND						
129	FLOOR ADHESIVE (TAN, UNDER GRAY CARPET)	MACM	K1, K2, K3, K4, K8	1,380 SF	0703-MAE-129A	07/08/03	ND						
					0703-MAE-129B	07/08/03	ND						
					0703-MAE-129C	07/08/03	ND						
130	SUBFLOOR MATERIAL (GRAY, CEMENTITIOUS UNDERLAYMENT)	MACM	K1, K2, K3, K4, K8	1,380 SF	0703-MAE-130A	07/08/03	ND						THIS MATERIAL IS UNDER GRAY CARPET.
					0703-MAE-130B	07/08/03	ND						
					0703-MAE-130C	07/08/03	ND						
131	FLOOR ADHESIVE (TAN, UNDER 2' X 2' DARK BLUE WITH BROWN SPECKS CARPET SQUARES)	MACM	K5, K6, K7	2,142 SF	0703-MAE-131A	07/08/03	ND						
					0703-MAE-131B	07/08/03	ND						
					0703-MAE-131C	07/08/03	ND						
132	SUBFLOOR MATERIAL (GRAY, CEMENTITIOUS UNDERLAYMENT)	MACM	K5, K6, K7	2,142 SF	0703-MAE-132A	07/08/03	ND						THIS MATERIAL IS UNDER 2' X 2' DARK BLUE WITH BROWN SPECKS CARPET SQUARES.
					0703-MAE-132B	07/08/03	ND						
					0703-MAE-132C	07/08/03	ND						

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INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: ANNEX B (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
THE FOLLOWING NON-ASBESTOS MATERIALS WERE IDENTIFIED IN BUILDING ANNEX B (Unknown)													
082	VINYL FLOOR SHEETING (BLUE WITH GRAY STREAKS AND WHITE FLOOR ADHESIVE)	MACM	ENTRY 1, ENTRY 2, 311B, 312B	1,810 SF	1196-MAE-082A	11/01/96	ND						THE 1996 INSPECTION TEAM COULD NOT SEPARATE THE FLOOR ADHESIVE FROM THE VINYL FLOOR SHEETING, THEREFORE, THE FLOOR ADHESIVE WAS SAMPLED AS PART OF THIS MATERIAL.
					1196-MAE-082B	11/01/96	ND						
					1196-MAE-082C	11/01/96	ND						
083	WALL AND CEILING BOARD (GRAY SURFACE, WHITE CORE)	MACM	ENTRY 1, ENTRY 2, 311B, 312B	680 SF	1196-MAE-083A	11/01/96	ND						THE JOINT COMPOUND FOR THIS MATERIAL IS MATERIAL #087.
					1196-MAE-083B	11/01/96	ND						
					1196-MAE-083C	11/01/96	ND						
087	JOINT COMPOUND (WHITE)	MACM	ENTRY 1, ENTRY 2, 311B, 312B	68 SF	0301-MAE-087A	03/09/01	ND						THIS IS THE JOINT COMPOUND FOR MATERIAL #083.
					0301-MAE-087B	03/09/01	ND						
					0301-MAE-087C	03/09/01	ND						

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INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: ANNEX C (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
THE FOLLOWING NON-ASBESTOS MATERIALS WERE IDENTIFIED IN BUILDING ANNEX C (Unknown)													
079	VINYL FLOOR SHEETING (LIGHT BLUE WITH GRAY STREAKS VINYL FLOOR SHEETING)	MACM	ENTRY 1, ENTRY 2, 321C, 322C	1,810 SF	1196-MAE-079A	11/04/96	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #080.
					1196-MAE-079B	11/04/96	ND						
					1196-MAE-079C	11/04/96	ND						
080	FLOOR ADHESIVE (YELLOW, UNDER LIGHT BLUE WITH GRAY STREAKS VINYL FLOOR SHEETING)	MACM	ENTRY 1, ENTRY 2, 321C, 322C	1,810 SF	1196-MAE-080A	11/04/96	ND						THIS IS THE ADHESIVE FOR MATERIAL #079.
					1196-MAE-080B	11/04/96	ND						
					1196-MAE-080C	11/04/96	ND						
081	WALL AND CEILING BOARD (WHITE)	MACM	ENTRY 1, ENTRY 2, 321C, 322C	680 SF	1196-MAE-081A	11/04/96	ND						THE JOINT COMPOUND FOR THIS MATERIAL IS MATERIAL #089.
					1196-MAE-081B	11/04/96	ND						
					1196-MAE-081C	11/04/96	ND						
089	JOINT COMPOUND (WHITE)	MACM	ENTRY 1, ENTRY 2, 321C, 322C	68 SF	0301-MAE-089A	03/09/01	ND						THIS IS THE JOINT COMPOUND FOR MATERIAL #081.
					0301-MAE-089B	03/09/01	ND						
					0301-MAE-089C	03/09/01	ND						
133	SINK COATING (BLACK PAD)	MACM	322C	1 EA	0703-MAE-133A	07/08/03	ND						
					0703-MAE-133B	07/08/03	ND						
					0703-MAE-133C	07/08/03	ND						

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INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: ANNEX D (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
THE FOLLOWING NON-ASBESTOS MATERIALS WERE IDENTIFIED IN BUILDING ANNEX D (Unknown)													
076	WALL AND CEILING BOARD (WHITE)	MACM	ENTRY 1, ENTRY 2, 333D, 334D	680 SF	1196-MAE-076A	11/01/96	ND						THE JOINT COMPOUND FOR THIS MATERIAL IS MATERIAL #090.
					1196-MAE-076B	11/01/96	ND						
					1196-MAE-076C	11/01/96	ND						
077	VINYL FLOOR SHEETING (LIGHT BLUE WITH GRAY STREAKS)	MACM	ENTRY 1, ENTRY 2, 333D, 334D	2,080 SF	1196-MAE-077A	11/01/96	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #091.
					1196-MAE-077B	11/01/96	ND						
					1196-MAE-077C	11/01/96	ND						
078	FLOOR ADHESIVE (YELLOW, UNDER BROWN INTERWOVEN WITH TAN CARPET)	MACM	333D, 334D	150 SF	1196-MAE-078A	11/01/96	ND						
					1196-MAE-078B	11/01/96	ND						
					1196-MAE-078C	11/01/96	ND						
090	JOINT COMPOUND (WHITE)	MACM	ENTRY 1, ENTRY 2, 333D, 334D	68 SF	0301-MAE-090A	03/09/01	ND						THIS IS THE JOINT COMPOUND FOR MATERIAL #076.
					0301-MAE-090B	03/09/01	ND						
					0301-MAE-090C	03/09/01	ND						
091	FLOOR ADHESIVE (TAN, UNDER LIGHT BLUE WITH GRAY STREAKS VINYL FLOOR SHEETING)	MACM	ENTRY 1, ENTRY 2, 333D, 334D	2,080 SF	0301-MAE-091A	03/09/01	ND						THIS IS THE ADHESIVE FOR MATERIAL #077.
					0301-MAE-091B	03/09/01	ND						
					0301-MAE-091C	03/09/01	ND						

INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: ANNEX E (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
THE FOLLOWING NON-ASBESTOS MATERIALS WERE IDENTIFIED IN BUILDING ANNEX E (Unknown)													
092	WALLBOARD (GRAY)	MACM	ENTRY 1, ENTRY 2, 331D, 332D	680 SF	0301-MAE-092A	03/09/01	ND						THE JOINT COMPOUND FOR THIS MATERIAL IS MATERIAL #093.
					0301-MAE-092B	03/09/01	ND						
					0301-MAE-092C	03/09/01	ND						
093	JOINT COMPOUND (WHITE)	MACM	ENTRY 1, ENTRY 2, 331D, 332D	68 SF	0301-MAE-093A	03/09/01	ND						THIS IS THE JOINT COMPOUND FOR MATERIAL #092.
					0301-MAE-093B	03/09/01	ND						
					0301-MAE-093C	03/09/01	ND						
094	VINYL FLOOR SHEETING (LIGHT BLUE WITH GRAY STREAKS)	MACM	ENTRY 1, ENTRY 2, 331D, 332D	2,080 SF	0301-MAE-094A	03/09/01	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #095.
					0301-MAE-094B	03/09/01	ND						
					0301-MAE-094C	03/09/01	ND						
095	FLOOR ADHESIVE (TAN, UNDER LIGHT BLUE WITH GRAY STREAKS VINYL FLOOR SHEETING)	MACM	ENTRY 1, ENTRY 2, 331D, 332D	2,080 SF	0301-MAE-095A	03/09/01	ND						THIS IS THE ADHESIVE FOR MATERIAL #094.
					0301-MAE-095B	03/09/01	ND						
					0301-MAE-095C	03/09/01	ND						

MANNHEIM AMERICAN ELEMENTARY SCHOOL
HE 3469

INSPECTION DATE: 2 - 8 JUL 2003
BUILDING NUMBER: ANNEX M (Unknown)

TABLE 4.1 - RESULTS OF THE INSPECTION

HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	AHERA CAT.	MATERIAL LOCATION(S)	QTY.	SAMPLE INFORMATION			FRI-ABLE	OVERALL CONDITION	ACCESS.	EPA ASS. CAT	MANAGE-MENT ACTION	COMMENTS
					NUMBER	DATE	RESULT						
THE FOLLOWING NON-ASBESTOS MATERIALS WERE IDENTIFIED IN BUILDING ANNEX M (Unknown)													
001	VINYL FLOOR SHEETING (TAN WITH GRAY AND BLACK STREAKS)	MACM	M1, M2, M3, M4	2,500 SF	11481	07/01/88	ND						THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #048.
					11487	07/01/88	ND						
002	WALL AND CEILING BOARD (WHITE)	MACM	M1, M2, M3, M4	6,480 SF	11482	07/01/88	ND						THE JOINT COMPOUND FOR THIS MATERIAL IS MATERIAL #088.
					11486	07/01/88	ND						
003	ASPHALTIC ROOFING MATERIALS (DARK BROWN, RIGID, FIBERGLASS-LIKE)	MACM	ROOF	2,500 SF	11483	07/01/88	ND						
					11484	07/01/88	ND						
048	FLOOR ADHESIVE (YELLOW, UNDER TAN WITH GRAY AND BLACK STREAKS VINYL FLOOR SHEETING)	MACM	M1, M2, M3, M4	2,500 SF	0726-MAE-001A	08/11/89	ND						THIS IS THE ADHESIVE FOR MATERIAL #001.
					0726-MAE-001B	08/11/89	ND						
					0726-MAE-001C	08/11/89	ND						
088	JOINT COMPOUND (WHITE)	MACM	M1, M2, M3, M4	648 SF	0301-MAE-088A	03/09/01	ND						THIS IS THE JOINT COMPOUND FOR MATERIAL #002.
					0301-MAE-088B	03/09/01	ND						
					0301-MAE-088C	03/09/01	ND						

5.0 RECOMMENDED MANAGEMENT ACTIONS

Table 5.1 presents recommended management actions for all ACM identified and confirmed to be present during the 2003 inspection. The information on Table 5.1 is grouped by building for each building included in the inventory at the time of the 2003 inspection. Consult the Asbestos Management Plan and the Operations and Maintenance Manual for additional management action information.

MANNHEIM AMERICAN ELEMENTARY SCHOOL
HE 3469

TABLE 5.1 - RECOMMENDED MANAGEMENT ACTIONS

BUILDING NUMBER	HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	MATERIAL LOCATION(S)	COMMENTS	RECOMMENDED MANAGEMENT ACTION(S)
0697 (Unknown)	001	VINYL FLOOR TILE (1' X 1' BEIGE WITH WHITE AND BLACK SPECKS)	03, 04A, 121C, 122C, 123C, 124C, 125C, 128C, 129C, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #036. THIS MATERIAL IS LOCATED BELOW EXISTING CARPET IN SOME LISTED LOCATIONS. PORTIONS OF THIS MATERIAL WERE ABATED DURING THE BUILDING RENOVATION PROJECT.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.
0697 (Unknown)	019	SHEET GASKET (2" - 6" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	HEAT DISTRIBUTION ROOM 1, HEAT DISTRIBUTION ROOM 2, MECHANICAL ROOM 1, MECHANICAL ROOM 2, MECHANICAL ROOM 3A, OLD BOILER ROOM		1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.
0697 (Unknown)	021	STALL PARTITIONS (GRAY CEMENT BOARD)	GIRLS TOILET G3, OLD BOILER ROOM, 09D	ONE STALL PARTITION IN ROOM 09D IS DAMAGED AND NEEDS TO BE REMOVED. THERE IS ALSO ONE UNINSTALLED STALL PARTITION IN THE OLD BOILER ROOM THAT NEEDS TO BE REMOVED.	1. PORTIONS OF THIS MATERIAL SHOULD BE REMOVED WITHIN ONE YEAR OF RECEIPT OF THIS REPORT. 2. THIS MATERIAL COULD BE REMOVED BY QUALIFIED MAINTENANCE PERSONNEL WHO HAVE RECEIVED TRAINING IN SMALL SCALE, SHORT DURATION ABATEMENT PROJECTS. 3. FOR THE REMAINDER OF THIS MATERIAL, NO IMMEDIATE ABATEMENT IS REQUIRED. 4. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THE REMAINDER OF THIS MATERIAL. 5. CONTINUE SURVEILLANCE OF THE REMAINDER OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.
0697 (Unknown)	036	FLOOR ADHESIVE (BLACK, UNDER 1' X 1' BEIGE WITH WHITE AND BLACK SPECKS VINYL FLOOR TILE)	03, 04A, 121C, 122C, 123C, 124C, 125C, 128C, 129C, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	THIS IS THE ADHESIVE FOR MATERIAL #001. PORTIONS OF THIS MATERIAL WERE ABATED DURING THE BUILDING RENOVATION PROJECT.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.
0697 (Unknown)	037	FLOOR ADHESIVE (BLACK, UNDER GREEN RAISED DOT RUBBER FLOOR SHEETING)	CORRIDOR E, CORRIDOR H, STAIRWELL 1, 05 SUPPLY, 05A SUPPLY, 19, 20, 20A, 21, 22B, 22D, 22E, 27, 27B, 28, 28A, 29, 30, 30A, 31	THIS IS THE ADHESIVE FOR MATERIAL #005.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.
0697 (Unknown)	039	WALL PLASTER (WHITE)	CORRIDOR F		1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.

MANNHEIM AMERICAN ELEMENTARY SCHOOL
HE 3469

TABLE 5.1 - RECOMMENDED MANAGEMENT ACTIONS

BUILDING NUMBER	HOMO. MATRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	MATERIAL LOCATION(S)	COMMENTS	RECOMMENDED MANAGEMENT ACTION(S)
0697 (Unknown)	041	FLOOR ADHESIVE (BROWN GLUE ON BLACK ADHESIVE, UNDER GREEN VINYL FLOOR SHEETING)	CORRIDOR B2	AT THE TIME OF THE 1997, 2000, AND 2003 AHERA INSPECTIONS, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED DUE TO THE APPLICATION OF A NEW CONCRETE FLOORING PRODUCT. IT WAS ASSUMED THAT THIS MATERIAL STILL REMAINS WITHIN THE BUILDING.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.
0697 (Unknown)	118	SHEET GASKET (4" - 6" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	09 LOBBY, 27B	THIS MATERIAL IS LOCATED WITHIN THE PIPE CHASE INSIDE 09 LOBBY.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.
0697 (Unknown)	120	ROPE GASKET (WHITE)	MECHANICAL ROOM 3A	THIS MATERIAL IS LOCATED ON PIPING AND IS USED AS A SPACER FOR CLAMPS.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.
0697K (Unknown)	128	SHEET GASKET (4" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	MR		1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.

APPENDIX A

AHERA ACCREDITATION STATEMENT

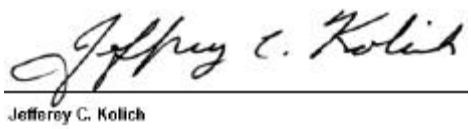
AND

INSPECTORS' CERTIFICATES

This report was prepared by Baker Environmental, Inc., Coraopolis, Pennsylvania, for the Department of Defense Education Activity (DODEA). The inspection was performed in a manner consistent with applicable regulations and guidelines.

The inspectors who inspected this school are accredited in accordance with Section 206 of Title II under the Asbestos Hazard Emergency Response Act (AHERA). The credentials are copied on the following pages.

William E. Gray



Jefferey C. Kolich

Professional Training Associates, Inc.

ASBESTOS BUILDING INSPECTOR

Refresher Training Course

Jeffrey C. Kolich

has successfully completed the Asbestos Building Inspector Refresher Course and passed the course examination for purposes of accreditation under Section 206 of Title II of the Toxic Substance Control Act (TSCA). Conducted by Professional Training Associates, Inc., 46 South Linden Street, Suite C, Duquesne, PA 15110, (412) 460-0266.

KOLICHJ
BIR030603DUQUESN

Location: **Duquesne, PA**

Course Date: **March 6, 2003**

Course Director: _____
John J. Curcio

Examination: **March 6, 2003**

Expiration: **March 6, 2004**

Certificate Number: **PTA 03 - 23 - 11418**

Professional Training Associates, Inc.

ASBESTOS BUILDING INSPECTOR

Refresher Training Course

William Gray

has successfully completed the Asbestos Building Inspector Refresher Course and passed the course examination for purposes of accreditation under Section 206 of Title II of the Toxic Substance Control Act (TSCA). Conducted by Professional Training Associates, Inc., 46 South Linden Street, Suite C, Duquesne, PA 15110, (412) 460-0266.

GRAYWIZ
BIR091202DUQUESN

Location:	**Duquesne, PA**	Examination:	**September 12, 2002**
Course date:	**September 12, 2002**	Expiration:	**September 12, 2003**
Course Director:	**John J. Curcio**	Certificate Number:	**PTA 02 - 23 - 10239**

APPENDIX B

GLOSSARY

GLOSSARY

Abatement	Procedures which are implemented to remove asbestos materials from a damaged area, functional space, or a homogeneous area.
Asbestos	A group of naturally occurring minerals that can be separated into fibers which are flexible, heat resistant and chemically inert. The following asbestos minerals are used commercially: Actinolite, Amosite, Anthophyllite, Chrysotile, Crocidolite, and Tremolite.
Asbestos-Containing Material (ACM)	Per EPA regulations, any material that contains more than 1.0 percent asbestos by weight.
Asbestos Coordinator (AC)	The person at the local level who serves as a focal point or liaison for asbestos activities. Per DODEA Asbestos Management Policy, this person is the Principal of a school, or District Superintendent at a DSO.
Asbestos Hazard Emergency Response Act (AHERA)	An Act passed by Congress and signed by the President in October 1986 which requires the EPA to promulgate regulations requiring inspections for ACM, development of asbestos management plans, and management actions with respect to friable ACM in U.S. schools including DODDS.
Asbestos Management Plan	Required by AHERA, a plan detailing the steps taken to control potential asbestos hazards in school buildings.

Asbestos Management Program	A program instituted by DODEA to comply with AHERA and to administer long-term control and surveillance of all ACM in school buildings.
Containment System	A separation or barrier system that prevents the movement of asbestos-contaminated air from the abatement work area into uncontaminated areas.
Encapsulation	The treatment of ACM with a penetrating or surface sealant in order to minimize the potential for asbestos fiber release.
Enclosure	The system of containment that creates an airtight seal or barrier between the ACM and the adjacent space.
EPA	Environmental Protection Agency
Friable	Any material which, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure.
Homogeneous Sampling Area	An area of surfacing material, thermal system insulation material, or miscellaneous material that is uniform in color or texture, serves the same function, and was installed at the same time.
Removal	The removal of ACM from any surface or component in all or a portion of a building.
Operations and Maintenance (O&M) Program	A program specifically designed to clean up asbestos fibers previously released, to prevent the release of fibers by minimizing ACM disturbance or damage, and to monitor the condition of the ACM.

Surveillance	Periodic inspection of friable and non-friable ACM on a frequency consistent with the requirements of the AHERA regulations.

APPENDIX C

PLANS OF SAMPLE LOCATIONS

Common Spaces

Abbreviations and Designations

Room abbreviations and designations that may be used on the following sample location drawings are:

BR - **Boiler Room**

E - **Entry** - Exterior side of entry door

ER - **Electrical Rooms** - Includes telephone connection closets or LAN connection rooms

J - **Janitors Closets** - These are small spaces under stairwells and where cleaning supplies are stored

K - **Kitchen** - Includes dishwashing areas

LR - **Locker Room**

MR - **Mechanical Room** - Includes utility rooms and rooms housing air handling units

PC - **Pipe Chase**

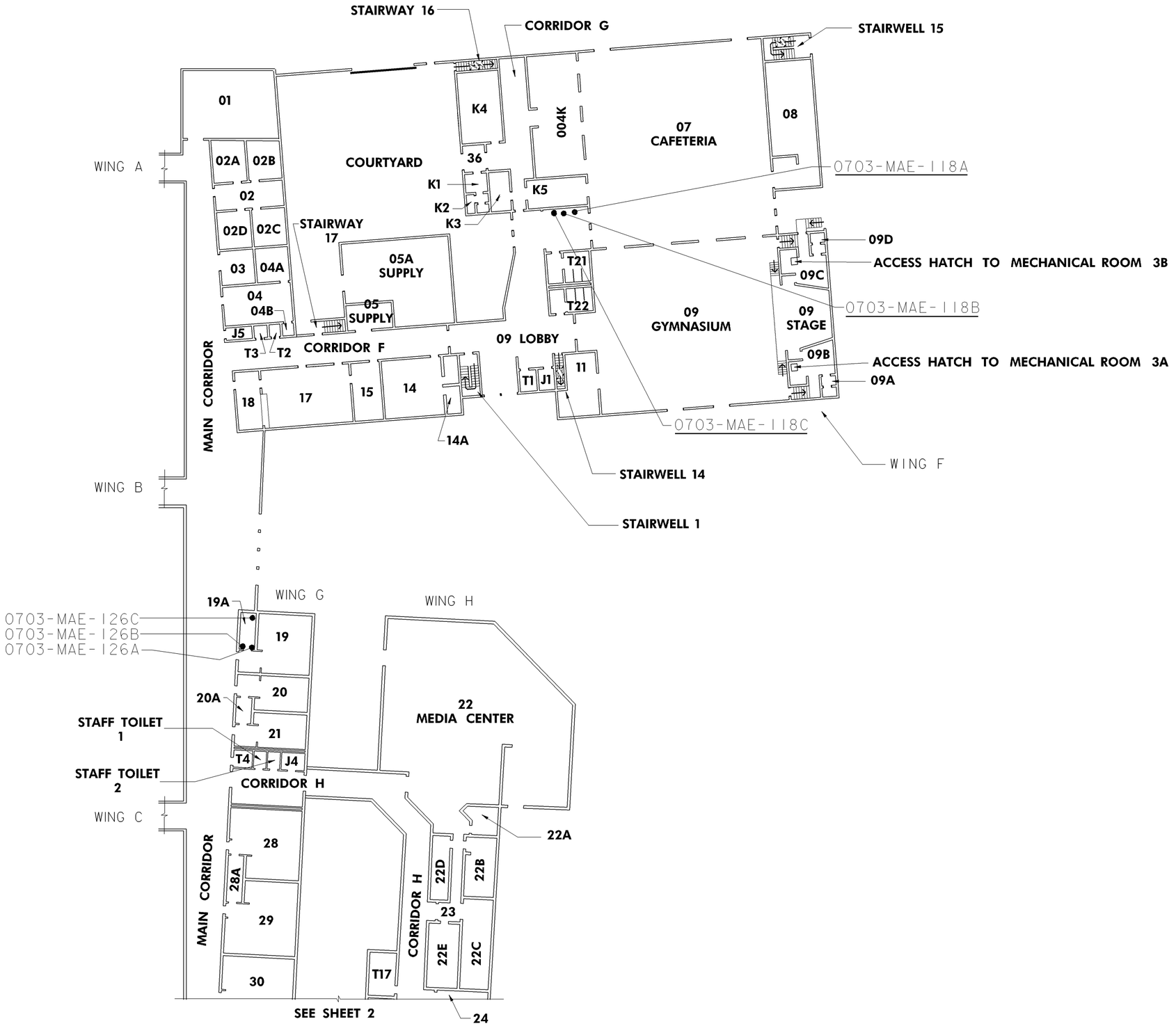
SH - **Shower**

SL - **Stairwell**

SY - **Stairway**

T - **Toilets** - Includes Boys, Girls, Mens, Womens, Staff, Handicapped, and small classroom toilets

V - **Vestibules** - Small lobbies and very short corridors near entrances of buildings



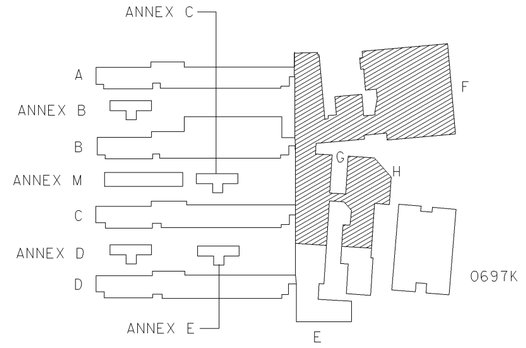
BUILDING 0697
PARTIAL FIRST FLOOR PLAN

LEGEND

116	Room No. (Typical)
●—	Sample Location
0203-STU-001	Sample Containing ACM
0203-STU-100	Sample Not Containing ACM
0203-STU-100*	Sample Not Analyzed

GENERAL NOTE:

THE FLOOR PLANS ON THIS DRAWING ARE FOR GENERAL ORIENTATION AND CONCEPTUAL PLANNING ONLY. THEY WERE DRAWN FROM A VARIETY OF SOURCES WITHOUT REPRESENTATION AS TO ACCURACY OR SCALE. THEREFORE, THEY ARE NOT SUITABLE FOR DETAILED DESIGN, ENGINEERING, OR CONSTRUCTION USE.



0697

KEY PLAN

N

NOTE:
ONLY SAMPLES TAKEN DURING THE AHERA INSPECTION ARE SHOWN.

10′ 0′ 10′ 20′ 30′ 40′

SYM	REVISIONS	DATE	APPROVED

DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

Baker Environmental
A Unit of Michael Baker Corporation
100 Airside Drive
Moon Township, PA 15108

U.S. ARMY CORPS OF ENGINEERS
TRANSATLANTIC PROGRAMS CENTER

US Army Corps of Engineers

ASBESTOS SAMPLE LOCATIONS
2003 AHERA INSPECTION

MANNHEIM AMERICAN ELEMENTARY SCHOOL
MANNHEIM, GERMANY
HE 3469
BUILDING 0697
PARTIAL FIRST FLOOR PLAN

SHEET REF. NO.	MED FILE NO.	SHEET
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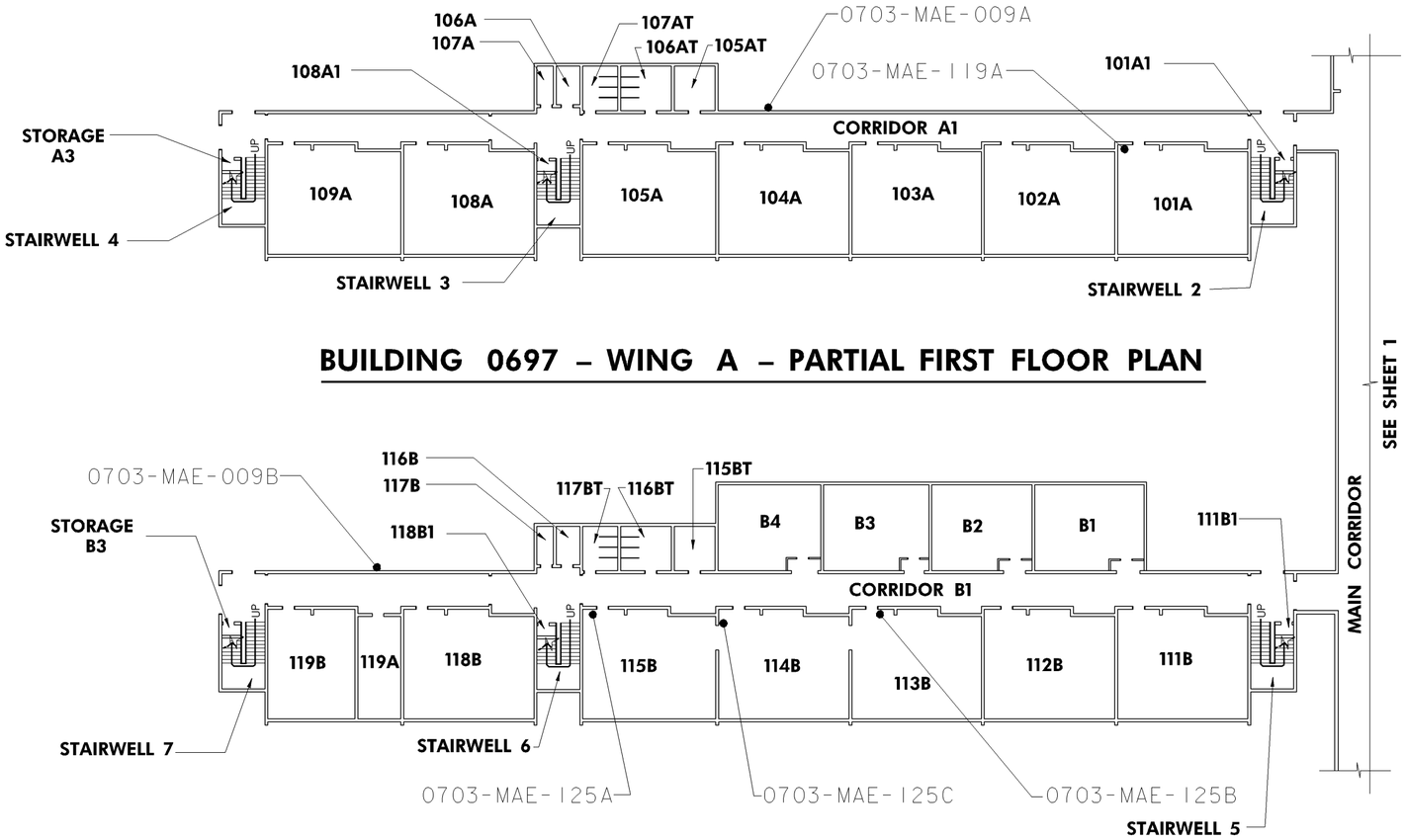
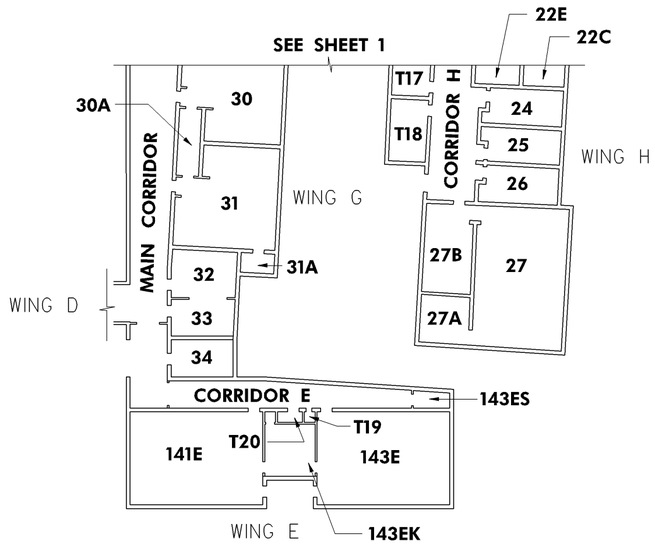


BUILDING 0697 – WING A – PARTIAL FIRST FLOOR PLAN

BUILDING 0697 – WING B – PARTIAL FIRST FLOOR PLAN



BUILDING 0697 PARTIAL FIRST FLOOR PLAN

LEGEND

116	Room No. (Typical)
●——	Sample Location
0203-STU-001	Sample Containing ACM
0203-STU-100	Sample Not Containing ACM
0203-STU-100*	Sample Not Analyzed

GENERAL NOTE:

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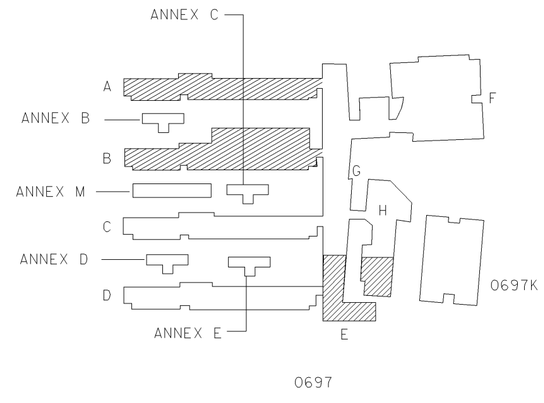

KEY PLAN

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NOTE:
ONLY SAMPLES TAKEN DURING THE AHERA INSPECTION ARE SHOWN.

10′ 0′ 10′ 20′ 30′ 40′

SYM	REVISIONS	DATE	APPROVED

DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

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U.S. ARMY CORPS OF ENGINEERS
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US Army Corps of Engineers

ASBESTOS SAMPLE LOCATIONS
2003 AHERA INSPECTION

MANNHEIM AMERICAN ELEMENTARY SCHOOL
MANNHEIM,GERMANY
HE 3469
BLDG. 0697 – WINGS A, B, E, G, AND H
PARTIAL FIRST FLOOR PLANS

SHEET REF. NO. 2

MED FILE NO.

SHEET

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LEGEND

116	Room No. (Typical)
●—	Sample Location
0203-STU-001	Sample Containing ACM
0203-STU-100	Sample Not Containing ACM
0203-STU-100*	Sample Not Analyzed

GENERAL NOTE:

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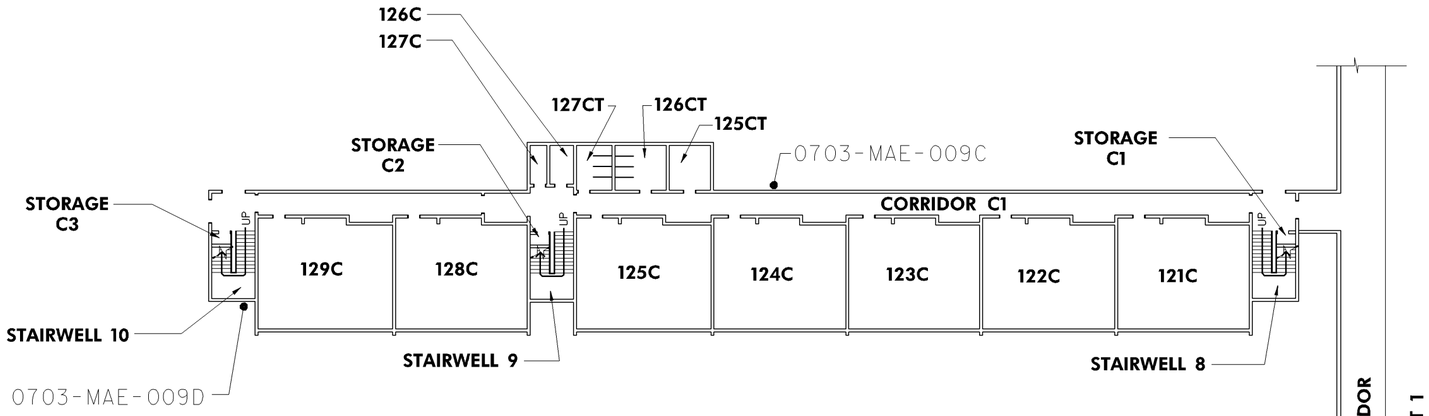
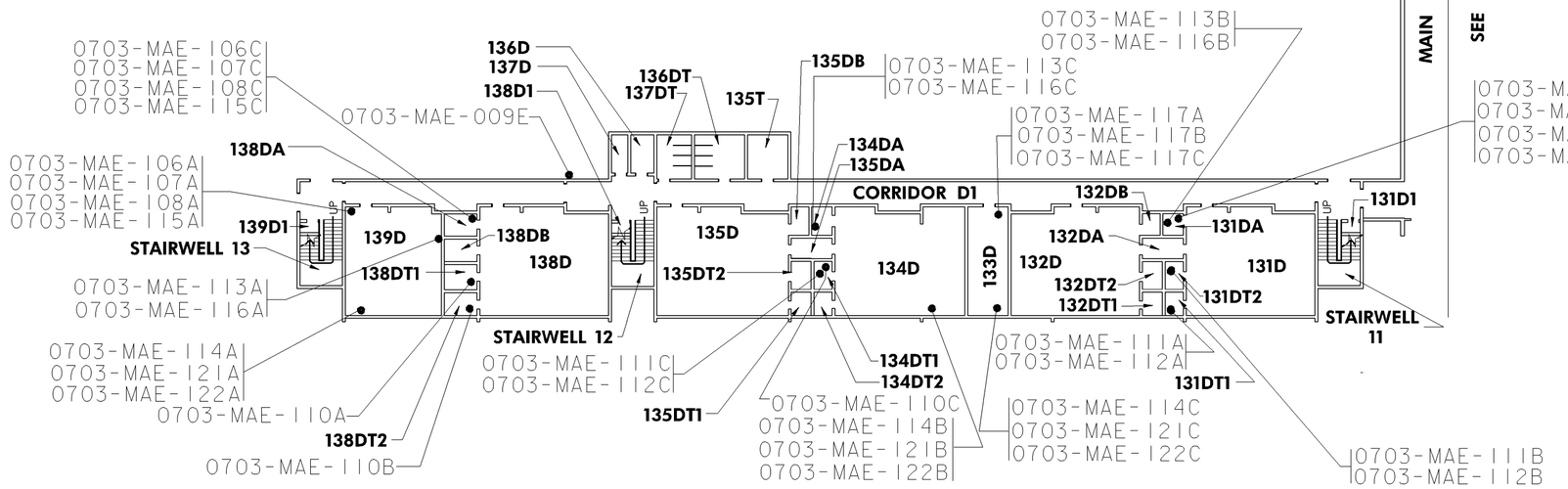
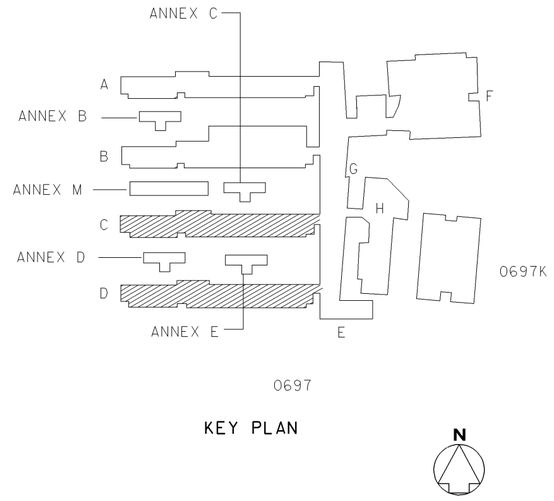


BUILDING 0697 – WING C – PARTIAL FIRST FLOOR PLAN



BUILDING 0697 – WING D – PARTIAL FIRST FLOOR PLAN



NOTE:
ONLY SAMPLES TAKEN DURING THE AHERA INSPECTION ARE SHOWN.

10′ 0′ 10′ 20′ 30′ 40′

SYM	REVISIONS	DATE	APPROVED

DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

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Moon Township, PA 15108

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US Army Corps of Engineers

ASBESTOS SAMPLE LOCATIONS
2003 AHERA INSPECTION

MANNHEIM AMERICAN ELEMENTARY SCHOOL
MANNHEIM,GERMANY
HE 3469
BUILDING 0697 – WINGS C AND D
PARTIAL FIRST FLOOR PLANS

SHEET REF. NO. 3

MED FILE NO. | SHEET

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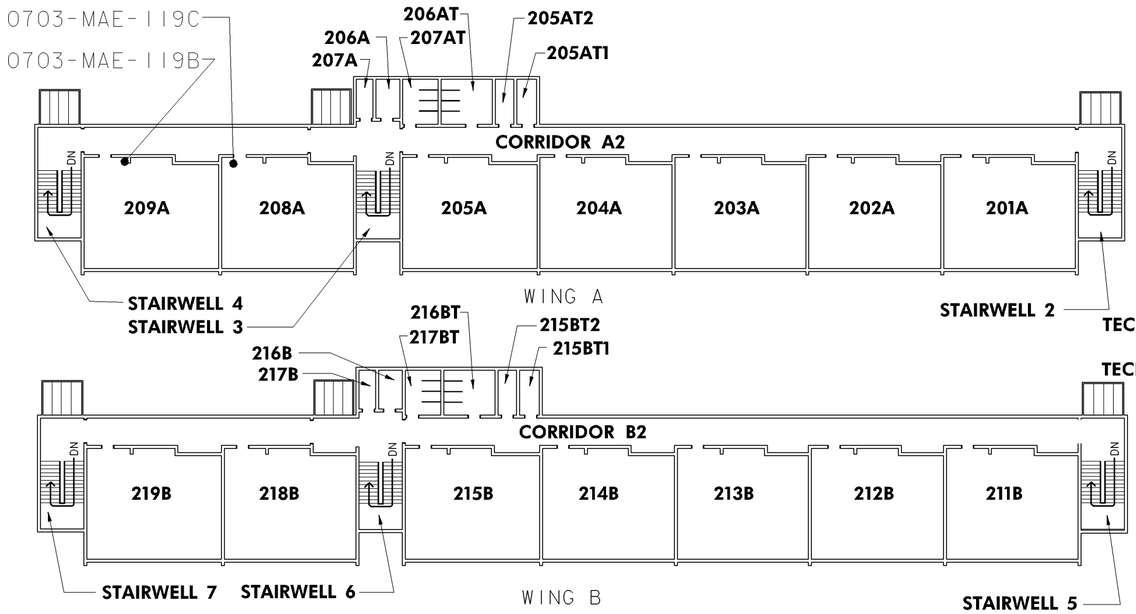
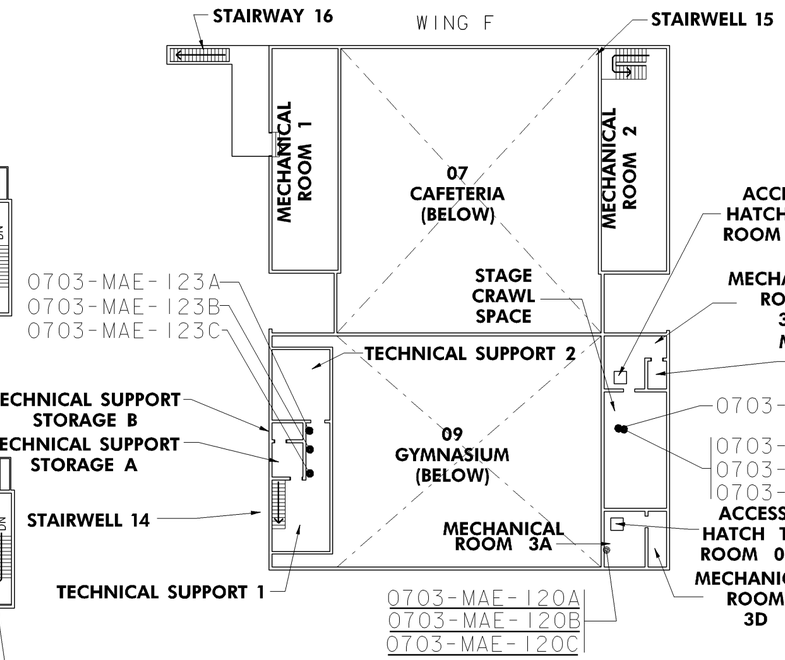




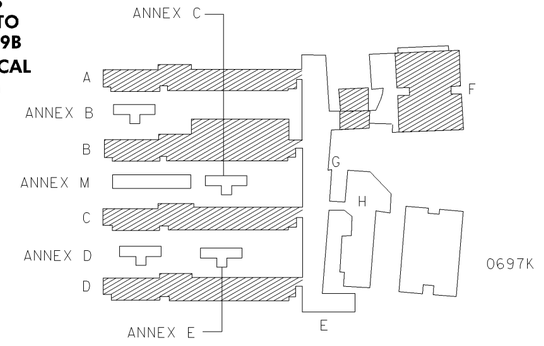
BUILDING 0697
PARTIAL SECOND FLOOR PLAN

LEGEND

116	Room No. (Typical)
●	Sample Location
0203-STU-001	Sample Containing ACM
0203-STU-100	Sample Not Containing ACM
0203-STU-100*	Sample Not Analyzed

GENERAL NOTE:

THE FLOOR PLANS ON THIS DRAWING ARE FOR GENERAL ORIENTATION AND CONCEPTUAL PLANNING ONLY. THEY WERE DRAWN FROM A VARIETY OF SOURCES WITHOUT REPRESENTATION AS TO ACCURACY OR SCALE. THEREFORE, THEY ARE NOT SUITABLE FOR DETAILED DESIGN, ENGINEERING, OR CONSTRUCTION USE.



0697

KEY PLAN

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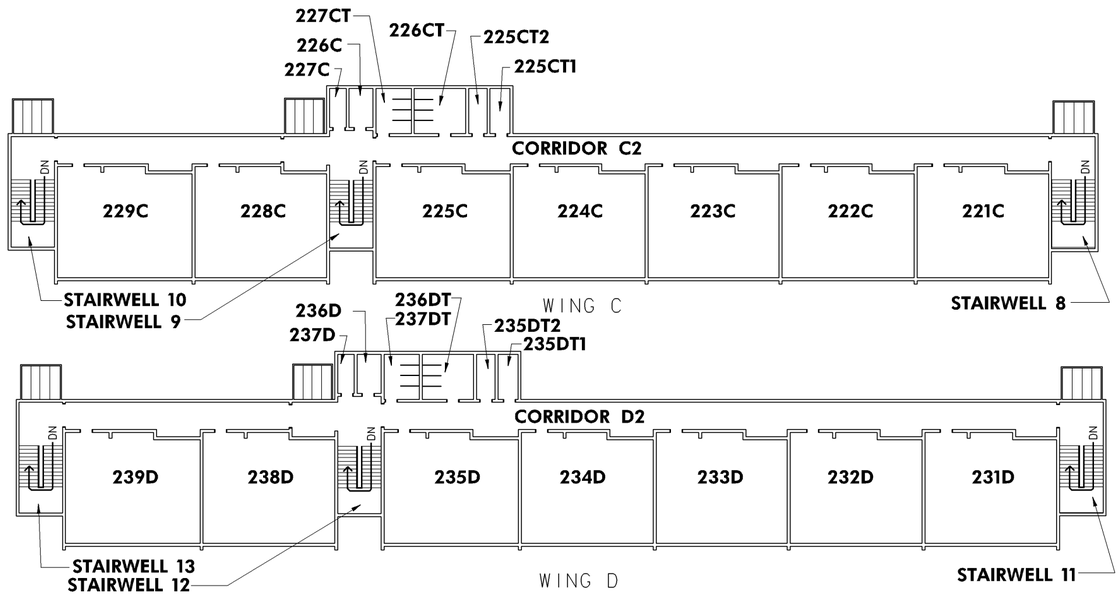
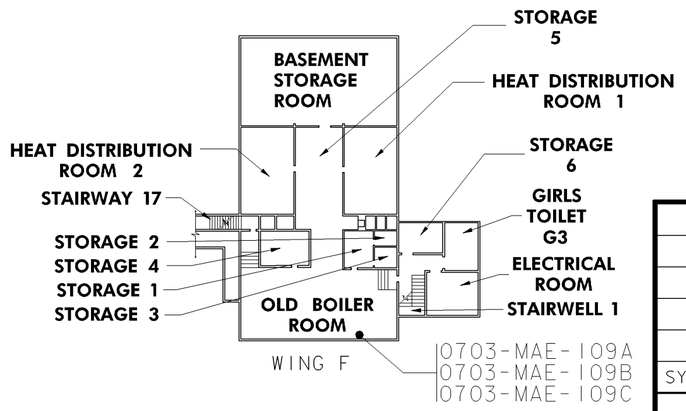


BUILDING 0697 PARTIAL SECOND FLOOR PLAN



BUILDING 0697
PARTIAL BASEMENT PLAN

NOTE:
ONLY SAMPLES TAKEN DURING THE AHERA INSPECTION ARE SHOWN.

10' 0' 10' 20' 30' 40'

SYM	REVISIONS	DATE	APPROVED

DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

Baker Environmental
A Unit of Michael Baker Corporation
100 Airside Drive
Moon Township, PA 15108

U.S. ARMY CORPS OF ENGINEERS
TRANSATLANTIC PROGRAMS CENTER

US Army Corps of Engineers

ASBESTOS SAMPLE LOCATIONS
2003 AHERA INSPECTION

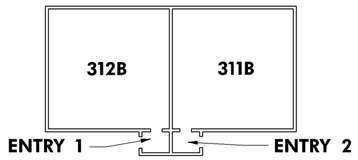
MANNHEIM AMERICAN ELEMENTARY SCHOOL
MANNHEIM,GERMANY
HE 3469
BUILDING 0697
PARTIAL 2ND FLOOR AND BASEMENT PLANS

SHEET REF. NO. 4

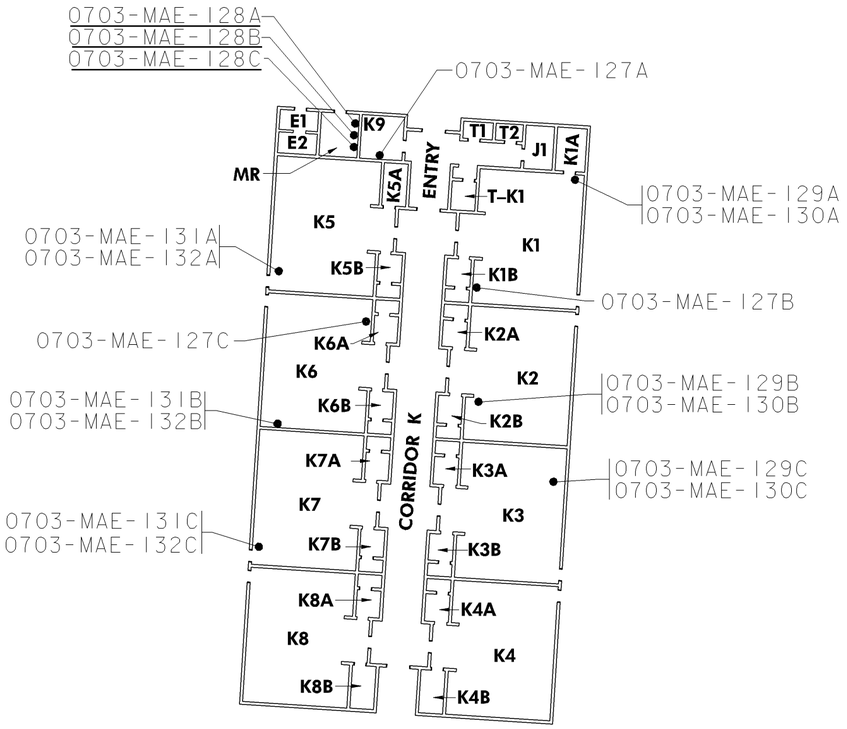
MED FILE NO.

SHEET

K:\DODEA\AHERA MASTER DRAWINGS\EUROPE\MANNHEIM ES4.DGN

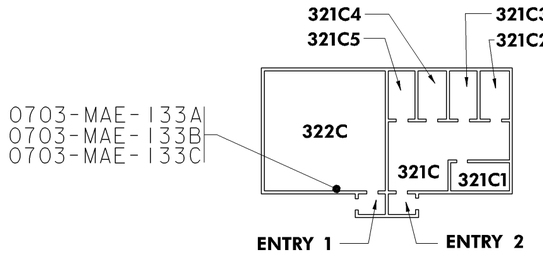


ANNEX B – FLOOR PLAN

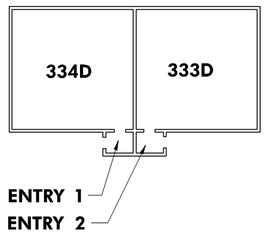


BUILDING 0697K – FLOOR PLAN

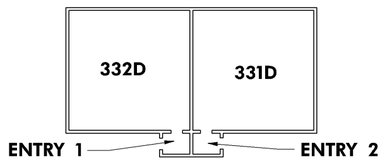
ANNEX M – FLOOR PLAN



ANNEX C – FLOOR PLAN



ANNEX D – FLOOR PLAN



ANNEX E – FLOOR PLAN

NOTE:
ONLY SAMPLES TAKEN DURING THE AHERA INSPECTION ARE SHOWN.

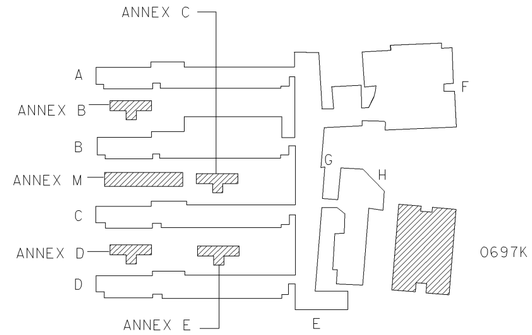
10′ 0′ 10′ 20′ 30′ 40′

LEGEND

116	Room No. (Typical)
●——	Sample Location
0203-STU-001	Sample Containing ACM
0203-STU-100	Sample Not Containing ACM
0203-STU-100*	Sample Not Analyzed

GENERAL NOTE:

THE FLOOR PLANS ON THIS DRAWING ARE FOR GENERAL ORIENTATION AND CONCEPTUAL PLANNING ONLY. THEY WERE DRAWN FROM A VARIETY OF SOURCES WITHOUT REPRESENTATION AS TO ACCURACY OR SCALE. THEREFORE, THEY ARE NOT SUITABLE FOR DETAILED DESIGN, ENGINEERING, OR CONSTRUCTION USE.



0697

KEY PLAN

N

SYM	REVISIONS	DATE	APPROVED

DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

Baker Environmental
A Unit of Michael Baker Corporation
100 Airside Drive
Moon Township, PA 15108

U.S. ARMY CORPS OF ENGINEERS
TRANSATLANTIC PROGRAMS CENTER

US Army Corps of Engineers

ASBESTOS SAMPLE LOCATIONS
2003 AHERA INSPECTION

MANNHEIM AMERICAN ELEMENTARY SCHOOL
MANNHEIM, GERMANY
HE 3469
ANNEX B, C, D, E & M – FLOOR PLANS, BUILDING 0697K – FLOOR PLAN

SHEET REF. NO. 5

MED FILE NO.

SHEET

K:\DODEA\AHERA MASTER DRAWINGS\EUROPE\MANNHEIM ESS.DGN

APPENDIX D

LABORATORY SAMPLE ANALYSIS REPORTS

RJ Lee Group, Inc.

350 Hochberg Road, Monroeville, PA 15146
Phone: (724) 325-1776 Fax: (724) 733-1799

Laboratory Report

Baker Environmental
Airside Business Park
100 Airside Drive
Moon Township, PA 15108
Attention: Ms. Donna M. Neal
Telephone: 412-269-6300

Report Date	7/17/2003
Sample Receipt Date.	7/14/2003
RJ Lee Group Job No	BAK307036
Client Job No.	101323 1.1/Mannheim E/S HE 3469
Authorization/P.O. No.	101323 1.1

Analysis: Asbestos in Bulk Samples
Method: EPA/600/R-93/116

RJLG Sample Number	Client Sample Number	Homogeneous	Asbestos Detected(%)	Non-Asbestos Fibers(%)	Non-Fibrous Materials(%)	Matrix Material	Analyst	Analysis Date
2622067.HPL	0703-MAE-007A	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Olive And Black Cork								
2622068.HPL	0703-MAE-009A	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Plaster								
2622069.HPL	0703-MAE-009B	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Plaster								
2622070.HPL	0703-MAE-009C	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Plaster								
2622071.HPL	0703-MAE-009D	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Plaster								
2622072.HPL	0703-MAE-009E	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Plaster								

RJ Lee Group Job No: BAK307036
Client Job No: 101323 1.1/Mannheim E/S 3469

RJLG Sample Number	Client Sample Number	Homogeneous	Asbestos Detected(%)	Non-Asbestos Fibers(%)	Non-Fibrous Materials(%)	Matrix Material	Analyst	Analysis Date
2622073.HPL	0703-MAE-106A	Yes	ND	15 CE	85 %	B, M	AKB	7/15/2003
Description: Blue Linoleum								
2622074.HPL	0703-MAE-106B	Yes	ND	15 CE	85 %	B, M	AKB	7/15/2003
Description: Blue Linoleum								
2622075.HPL	0703-MAE-106C	Yes	ND	15 CE	85 %	B, M	AKB	7/15/2003
Description: Blue Linoleum								
2622076.HPL	0703-MAE-107A	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: White Adhesive								
2622077.HPL	0703-MAE-107B	Yes	ND	2 CE	98 %	B, M	AKB	7/15/2003
Description: White Adhesive								
2622078.HPL	0703-MAE-107C	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: White Adhesive								
2622079.HPL	0703-MAE-108A	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Hard White Material								
2622080.HPL	0703-MAE-108B	Yes	ND	<1 CE	100 %	B, M	AKB	7/15/2003
Description: Hard White Material								
2622081.HPL	0703-MAE-108C	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Hard White Material								

RJ Lee Group Job No: BAK307036
Client Job No: 101323 1.1/Mannheim E/S 3469

RJLG Sample Number	Client Sample Number	Homogeneous	Asbestos Detected(%)	Non-Asbestos Fibers(%)	Non-Fibrous Materials(%)	Matrix Material	Analyst	Analysis Date
2622082.HPL	0703-MAE-109A	Yes	ND	70 CE	30 %	T, B, M	AKB	7/15/2003
Description: Black And Tan Woven Material								
2622083.HPL	0703-MAE-109B	Yes	ND	70 CE	30 %	T, B, M	AKB	7/15/2003
Description: Black And Tan Woven Material								
2622084.HPL	0703-MAE-109C	Yes	ND	70 CE	30 %	T, B, M	AKB	7/15/2003
Description: Black And Tan Woven Material								
2622085.HPL	0703-MAE-110A	Yes	ND	10 CE, 30 FG	60 %	P, B, M	AKB	7/15/2003
Description: Beige Ceiling Tile								
2622086.HPL	0703-MAE-110B	Yes	ND	15 CE, 30 FG	55 %	P, B, M	AKB	7/15/2003
Description: Beige Ceiling Tile								
2622087.HPL	0703-MAE-110C	Yes	ND	15 CE, 30 FG	55 %	P, B, M	AKB	7/15/2003
Description: Beige Ceiling Tile								
2622088.HPL	0703-MAE-111A	Yes	ND	5 CE, 2 FG	93 %	B, G, M	AKB	7/15/2003
Description: Gray Drywall								
2622089.HPL	0703-MAE-111B	Yes	ND	5 CE, 2 FG	93 %	B, G, M	AKB	7/15/2003
Description: Gray Drywall								
2622090.HPL	0703-MAE-111C	Yes	ND	5 CE, 5 FG	90 %	B, G, M	AKB	7/15/2003
Description: Gray Drywall								

RJ Lee Group Job No: BAK307036
Client Job No: 101323 1.1/Mannheim E/S 3469

RJLG Sample Number	Client Sample Number	Homogeneous	Asbestos Detected(%)	Non-Asbestos Fibers(%)	Non-Fibrous Materials(%)	Matrix Material	Analyst	Analysis Date
2622091.HPL	0703-MAE-112A	Yes	ND	<1 CE	100 %	B, M	AKB	7/15/2003
Description: Beige Joint Compound								
2622092.HPL	0703-MAE-112B	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Joint Compound								
2622093.HPL	0703-MAE-112C	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Joint Compound								
2622094.HPL	0703-MAE-113A	Yes	ND	3 CE, 3 FG	94 %	B, G, M	AKB	7/15/2003
Description: White Drywall								
2622095.HPL	0703-MAE-113B	Yes	ND	5 CE, 5 FG	90 %	B, G, M	AKB	7/15/2003
Description: White Drywall								
2622096.HPL	0703-MAE-113C	Yes	ND	3 CE, 2 FG	95 %	B, G, M	AKB	7/15/2003
Description: White Drywall								
2622097.HPL	0703-MAE-114A	Yes	ND	95 CE, 3 FG	2 %	M	AKB	7/15/2003
Description: Tan Ceiling Tile								
2622098.HPL	0703-MAE-114B	Yes	ND	99 CE	1 %	M	AKB	7/15/2003
Description: Tan Ceiling Tile								
2622099.HPL	0703-MAE-114C	Yes	ND	97 CE, 2 FG	1 %	M	AKB	7/15/2003
Description: Tan Ceiling Tile								

RJ Lee Group Job No: BAK307036
Client Job No: 101323 1.1/Mannheim E/S 3469

RJLG Sample Number	Client Sample Number	Homogeneous	Asbestos Detected(%)	Non-Asbestos Fibers(%)	Non-Fibrous Materials(%)	Matrix Material	Analyst	Analysis Date
2622100.HPL	0703-MAE-115A	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Gray Cement Material								
2622101.HPL	0703-MAE-115B	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Gray Cement Material								
2622102.HPL	0703-MAE-115C	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Gray Cement Material								
2622103.HPL	0703-MAE-116A	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Joint Compound								
2622104.HPL	0703-MAE-116B	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Joint Compound								
2622105.HPL	0703-MAE-116C	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Joint Compound								
2622106.HPL	0703-MAE-117A	Yes	ND	<1 CE	100 %	B, M	AKB	7/15/2003
Description: Beige Adhesive								
2622107.HPL	0703-MAE-117B	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Adhesive								
2622108.HPL	0703-MAE-117C	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Adhesive								

RJ Lee Group Job No: BAK307036
Client Job No: 101323 1.1/Mannheim E/S 3469

RJLG Sample Number	Client Sample Number	Homogeneous	Asbestos Detected(%)	Non-Asbestos Fibers(%)	Non-Fibrous Materials(%)	Matrix Material	Analyst	Analysis Date
2622109.HPL	0703-MAE-118A	Yes	70 CH	-	30 %	B, M	AKB	7/15/2003
Description: Beige And Red Gasket								
2622110.HPL	0703-MAE-118B	Yes	70 CH	-	30 %	B, M	AKB	7/15/2003
Description: Beige And Red Gasket								
2622111.HPL	0703-MAE-118C	Yes	70 CH	-	30 %	B, M	AKB	7/15/2003
Description: Beige And Red Gasket								
2622112.HPL	0703-MAE-119A	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Adhesive								
2622113.HPL	0703-MAE-119B	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Adhesive								
2622114.HPL	0703-MAE-119C	Yes	ND	-	100 %	B, M	AKB	7/15/2003
Description: Beige Adhesive								
2622115.HPL	0703-MAE-120A	Yes	50 CH	35 SF	15 %	B, M	AKB	7/15/2003
Description: White And Gray Woven Material								
2622116.HPL	0703-MAE-120B	Yes	50 CH	35 SF	15 %	B, M	AKB	7/15/2003
Description: White And Gray Woven Material								
2622117.HPL	0703-MAE-120C	Yes	50 CH	35 SF	15 %	B, M	AKB	7/15/2003
Description: White And Gray Woven Material								

RJ Lee Group Job No: BAK307036
Client Job No: 101323 1.1/Mannheim E/S 3469

RJLG Sample Number	Client Sample Number	Homogeneous	Asbestos Detected(%)	Non-Asbestos Fibers(%)	Non-Fibrous Materials(%)	Matrix Material	Analyst	Analysis Date
2622118.HPL	0703-MAE-121A	Yes	ND	5 CE	95 %	B, M	AKB	7/16/2003
Description: Beige Fibrous Glass								
2622119.HPL	0703-MAE-121B	Yes	ND	5 CE, 90 FG	5 %	B, M	AKB	7/16/2003
Description: Beige Fibrous Glass								
2622120.HPL	0703-MAE-121C	Yes	ND	3 CE, 95 FG	2 %	B, M	AKB	7/16/2003
Description: Beige Fibrous Glass								
2622121.HPL	0703-MAE-122A	Yes	ND	25 CE, 2 FG, 10 SF	63 %	T, B, M	AKB	7/16/2003
Description: Black Tar Material								
2622122.HPL	0703-MAE-122B	Yes	ND	20 CE, 2 FG, 15 SF	63 %	T, B, M	AKB	7/16/2003
Description: Black Tar Material								
2622123.HPL	0703-MAE-122C	Yes	ND	20 CE, 2 FG, 15 SF	63 %	T, B, M	AKB	7/16/2003
Description: Black Tar Material								
2622124.HPL	0703-MAE-123A	Yes	ND	2 CE, 2 SF	96 %	B, M	AKB	7/16/2003
Description: Tan Adhesive								
2622125.HPL	0703-MAE-123B	Yes	ND	2 CE, 2 SF	96 %	B, M	AKB	7/16/2003
Description: Tan Adhesive								
2622126.HPL	0703-MAE-123C	Yes	ND	2 CE, 2 SF	96 %	B, M	AKB	7/16/2003
Description: Tan Adhesive								

RJ Lee Group Job No: BAK307036
Client Job No: 101323 1.1/Mannheim E/S 3469

RJLG Sample Number	Client Sample Number	Homogeneous	Asbestos Detected(%)	Non-Asbestos Fibers(%)	Non-Fibrous Materials(%)	Matrix Material	Analyst	Analysis Date
2622127.HPL	0703-MAE-124A	Yes	ND	<1 CE	100 %	B, M	AKB	7/16/2003
Description: Gray Glazing Material								
2622128.HPL	0703-MAE-124B	Yes	ND	-	100 %	B, M	AKB	7/16/2003
Description: Gray Glazing Material								
2622129.HPL	0703-MAE-124C	Yes	ND	-	100 %	B, M	AKB	7/16/2003
Description: Gray Glazing Material								
2622130.HPL	0703-MAE-125A	Yes	ND	<1 CE, <1 FG, <1 SF	100 %	B, OP, M	AKB	7/16/2003
Description: Gray Debris Material								
2622131.HPL	0703-MAE-125B	Yes	ND	<1 CE, <1 FG, <1 SF	100 %	B, OP, M	AKB	7/16/2003
Description: Gray Debris Material								
2622132.HPL	0703-MAE-125C	Yes	ND	<1 CE, <1 FG, <1 SF	100 %	B, M	AKB	7/16/2003
Description: Gray Debris Material								
2622133.HPL	0703-MAE-126A	Yes	ND	-	100 %	B, M	AKB	7/16/2003
Description: Beige Adhesive								
2622134.HPL	0703-MAE-126B	Yes	ND	-	100 %	B, M	AKB	7/16/2003
Description: Beige Adhesive								
2622135.HPL	0703-MAE-126C	Yes	ND	-	100 %	B, M	AKB	7/16/2003
Description: Beige Adhesive								

RJ Lee Group Job No: BAK307036
Client Job No: 101323 1.1/Mannheim E/S 3469

RJLG Sample Number	Client Sample Number	Homogeneous	Asbestos Detected(%)	Non-Asbestos Fibers(%)	Non-Fibrous Materials(%)	Matrix Material	Analyst	Analysis Date
2622136.HPL	0703-MAE-127A	Yes	ND	-	100 %	B, M	AKB	7/16/2003
Description: Black Material								
2622137.HPL	0703-MAE-127B	Yes	ND	<1 CE	100 %	B, M	AKB	7/16/2003
Description: Black Material								
2622138.HPL	0703-MAE-127C	Yes	ND	-	100 %	B, M	AKB	7/16/2003
Description: Black Material								
2622139.HPL	0703-MAE-128A	Yes	70 CH	-	30 %	B, M	AKB	7/16/2003
Description: Beige Gasket Material								
2622140.HPL	0703-MAE-128B	Yes	70 CH	-	30 %	B, M	AKB	7/16/2003
Description: Beige Gasket Material								
2622141.HPL	0703-MAE-128C	Yes	65 CH	-	35 %	B, M	AKB	7/16/2003
Description: Beige Gasket Material								
2622142.HPL	0703-MAE-129A	Yes	ND	3 SF	97 %	B, M	AKB	7/16/2003
Description: Beige Adhesive								
2622143.HPL	0703-MAE-129B	Yes	ND	3 SF	97 %	B, M	AKB	7/16/2003
Description: Beige Adhesive								
2622144.HPL	0703-MAE-129C	Yes	ND	3 SF	97 %	B, M	AKB	7/16/2003
Description: Beige Adhesive								

RJ Lee Group Job No: BAK307036
Client Job No: 101323 1.1/Mannheim E/S 3469

RJLG Sample Number	Client Sample Number	Homogeneous	Asbestos Detected(%)	Non-Asbestos Fibers(%)	Non-Fibrous Materials(%)	Matrix Material	Analyst	Analysis Date
2622145.HPL	0703-MAE-130A	Yes	ND	<1 CE	100 %	B, M	AKB	7/16/2003
Description: Gray Material								
2622146.HPL	0703-MAE-130B	Yes	ND	<1 CE	100 %	B, M	AKB	7/16/2003
Description: Gray Material								
2622147.HPL	0703-MAE-130C	Yes	ND	-	100 %	B, M	AKB	7/16/2003
Description: Gray Material								
2622148.HPL	0703-MAE-131A	Yes	ND	-	100 %	B, M	AKB	7/16/2003
Description: Beige Adhesive								
2622149.HPL	0703-MAE-131B	Yes	ND	<1 CE	100 %	B, M	AKB	7/16/2003
Description: Beige Adhesive								
2622150.HPL	0703-MAE-131C	Yes	ND	<1 CE	100 %	B, M	AKB	7/16/2003
Description: Beige Adhesive								
2622151.HPL	0703-MAE-132A	Yes	ND	-	100 %	B, M	AKB	7/16/2003
Description: Gray Cement Material								
2622152.HPL	0703-MAE-132B	Yes	ND	-	100 %	B, M	AKB	7/16/2003
Description: Gray Cement Material								
2622153.HPL	0703-MAE-132C	Yes	ND	-	100 %	B, M	AKB	7/16/2003
Description: Gray Cement Material								

RJ Lee Group Job No: BAK307036
Client Job No: 101323 1.1/Mannheim E/S 3469

RJLG Sample Number	Client Sample Number	Homogeneous	Asbestos Detected(%)	Non-Asbestos Fibers(%)	Non-Fibrous Materials(%)	Matrix Material	Analyst	Analysis Date
2622154.HPL	0703-MAE-133A	Yes	ND	3 CE	97 %	B, M	AKB	7/16/2003
Description: Black Material								
2622155.HPL	0703-MAE-133B	Yes	ND	5 CE, <1 SF	95 %	B, M	AKB	7/16/2003
Description: Black Material								
2622156.HPL	0703-MAE-133C	Yes	ND	3 CE	97 %	B, M	AKB	7/16/2003
Description: Black Material								

RJ Lee Group Job No: BAK307036

Allan K. Bullock

Authorized Signature

Allan K. Bullock, Microscopist

ASBESTOS

AM = Amosite
AC = Actinolite
AN = Anthophyllite
CH = Chrysotile
CR = Crocidolite
TR = Tremolite

NON-ASBESTOS

CE = Cellulose
MW = Mineral Wool
FG = Fibrous Glass
SF = Synthetic Fibers
H = Hair
W = Wollastonite
OF = Other Fibers

NON-FIBROUS MATERIALS

AM = Amphibole
B = Binder
CA = Carbonates
CL = Clay
F = Feldspar
G = Gypsum
HY = Hydromagnesite
M = Miscellaneous
MI = Mica
OP = Opaque
OR = Organic
P = Perlite
Q = Quartz
T = Tar
V = Vermiculite

DISCLAIMER NOTES

- "ND" indicates no asbestos was detected; the method detection limit is 1%.
- "Trace" or "<1" indicates asbestos was identified in the sample, but the concentration is less than the method quantitation limit of 1%. PLM coefficients of variance range from approximately 1.8 at the quantitation limit of 1% to 0.1 at high fiber concentrations.
- Samples are archived for three months following analysis and are then properly discarded.
- These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which these results are used or interpreted.
- This test report relates to the items tested.
- This report is not valid unless it bears the name of a NVLAP-approved signatory.
- Any reproduction of this document must include the entire document in order for the report to be valid.
- This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.
- Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar nonfriable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as "non-asbestos-containing."
-

DEPARTMENT OF DEFENSE
EDUCATION ACTIVITY
ASBESTOS MANAGEMENT PROGRAM

2003
Asbestos Management Plan

for

Mannheim American Elementary School
Mannheim-Kaefertal, Germany
HE 3469

Prepared For:

Department of Defense Education Activity
Logistics Division
4040 North Fairfax Drive
Arlington, Virginia 22203-1635

Prepared By:

Baker Environmental, Inc.
Airside Business Park
100 Airside Drive
Moon Township, PA 15108

Under Contract With:

U.S. Army Corps of Engineers
Transatlantic Programs Center
Winchester, Virginia

ASBESTOS MANAGEMENT PLAN
FOR
MANNHEIM AMERICAN ELEMENTARY SCHOOL
HE 3469

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IMPORTANT FOREWORD

The information presented herein, together with historical records for this location, satisfies the reporting requirements of the AHERA legislation and DODEA policy regarding Asbestos Management Plans.

FOR A SUMMARY TABULATION OF WHERE ASBESTOS WAS FOUND, AND WHAT SHOULD BE DONE ABOUT IT, PLEASE REFER TO TABLE 5.1 PRINTED ON BLUE-TINTED PAPER.

Please also note that not all building materials have been tested. Examples of this may be materials which are hidden from view, inaccessible, or where sampling would be destructive. **THEREFORE, THERE IS NO ASSURANCE THAT UNTESTED MATERIALS ARE ASBESTOS-FREE.**

1.0 INTRODUCTION

This Asbestos Management Plan for Mannheim American Elementary School is a result of the inspection conducted by Baker Environmental, Inc. (Baker). The Asbestos Management Plan should be used in combination with the 2003 AHERA Inspection Report and the Operations and Maintenance Manual.

This plan contains all of the elements described in the U.S. Environmental Protection Agency (EPA) Rule, "Asbestos-Containing Materials in Schools," 40 Code of Federal Regulations (CFR), Part 763. The EPA Rule was promulgated on October 30, 1987, as required by the Asbestos Hazard Emergency Response Act (AHERA) of 1986. This Asbestos Management Plan was developed by an EPA-accredited management planner and includes:

- A description of inspections and management actions;
- Recommendations;
- Names of accredited persons who performed required work; and
- A plan for inspection, periodic surveillance, and operations and maintenance.

Under AHERA, a Local Education Agency or "LEA" has numerous responsibilities. For the Department of Defense Dependents Schools (DODDS), the LEA is defined as "the governing authority of any school operated under the defense dependents' education system provided for under the Defense Dependents' Education Act of 1978." In accordance with DODEA's Asbestos Management Program Procedures (DS Manual 4800.3), the Asbestos Program Manager at DODEA headquarters will serve the function of the LEA. The LEA responsibilities include the following:

- Ensure that the activities of any persons who perform inspections, reinspections, and periodic surveillance, develop and update management plans, and develop and implement response actions, including operations and maintenance, are carried out in accordance with Subpart E of this part.

- Ensure that all custodial and maintenance employees are properly trained as required by Subpart E of AHERA (reference (b)) and other applicable Federal and/or State regulations (e.g., the Occupational Safety and Health Administration asbestos standard for construction, the EPA worker protection rule, or applicable State regulations).

- Ensure that workers and building occupants, or their legal guardians, are informed at least once each school year about inspections, response actions, and post-response action activities, including periodic reinspection and surveillance activities that are planned or in progress.

- Ensure that short-term workers (e.g., telephone repair workers, utility workers, or exterminators) who may come in contact with asbestos in a school are provided information regarding the locations of ACM and suspected ACM assumed to be ACM.

- Ensure that warning labels are posted in accordance with Part 763.95 of AHERA (reference (b)).

- Ensure that management plans are available for inspection and notification of such availability has been provided as specified in the management plan in Part 763.93(g) of AHERA (reference (b)).

- Designate an Asbestos Coordinator (AC) to ensure that requirements of the LEA are properly implemented at the local level. Principals are hereby designated as the AC for their facilities. For non-school facilities, the AC shall be the Administrative Manager of the unit.

- Ensure that the AC and/or their designated person receives adequate training to perform duties assigned under this section. Such training shall provide, as necessary, basic knowledge of:

  -- Health effects of asbestos.
  -- Detection, identification, and assessment of ACM.
  -- Options for controlling ACM.
  -- Asbestos management programs.
  -- Relevant Federal and State regulations concerning asbestos, including those in this Subpart E and those of the Occupational Safety and Health Administration, U.S. Department of Labor, the U.S. Department of Transportation and the U.S. Environmental Protection Agency.

- Ensure that the presence of ACM in a DODEA building is considered before initiating repair, maintenance, or construction projects.

- Provide timely notifications of fiber releases to all appropriate DODEA personnel, employee representative organizations, base command, and parents.

2.0 LOCAL EDUCATION AGENCY REPRESENTATIVE

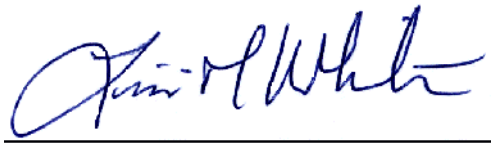
The LEA Representative designated by the Department of Defense Education Activity (DODEA) to ensure that the general LEA responsibilities described in Title 40 CFR, Part 763.84, are carried out is:

Ms. Liisa M. White
Department of Defense Education Activity
Logistics Division/Facilities Branch
4040 North Fairfax Drive
Arlington, VA 22203-1635
(703) 696-3850 (ext. 1801)
(703) 696-4030 (Fax)

This individual is qualified to perform the duties assigned to the LEA Representative as described in Title 40 CFR, Part 763.

LEA Certification

As the LEA Representative, I certify that responsibilities as stipulated by Title 40 CFR, Section 763.84, have been met or will be met to the extent feasible and in a manner consistent with national security.



Liisa M. White

3.0 ASBESTOS COORDINATOR (AC)

The current Asbestos Coordinator (AC) designated to carry out the duties of the LEA at Mannheim American Elementary School is:

Ms. Bonnie Bowen-Hannan
Mannheim American Elementary School
Unit 29938
APO AE 09086

Telephone: 49-621-722109
Telefax: 49-621-723905

According to asbestos management program procedures described in DODEA's DS Manual 4800.3, Section D, Paragraph 3:

> "The AC will assume the duties directly or may delegate the duties to a staff employee at the local level; however, the AC retains the responsibility and accountability for implementation of the asbestos program at the local level."

If the above named AC has delegated responsibilities, please insert information below:

Name	Signature	Timeframe

4.0 SUMMARY OF INSPECTION FINDINGS

The 2003 AHERA Inspection (2003 inspection) of Mannheim American Elementary School was conducted on 2-8 July 2003. Table 4.1 following this page summarizes the findings concerning the presence of ACM in each building.

Detailed results of the 2003 inspection, sample locations, ACM condition assessments, sample analysis, and inspector accreditation credentials are included in the 2003 AHERA Inspection Report for Mannheim American Elementary School. A copy of this report was included with this Asbestos Management Plan when it was submitted to Ms. Bonnie Bowen-Hannan.

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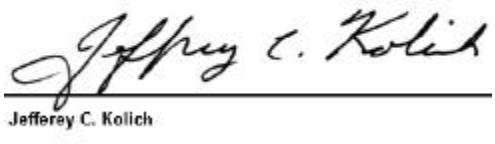
TABLE 4.1 - ACM IN EACH BUILDING

BUILDING NUMBER	HOMO. MATERIAL NUMBER	MATERIAL TYPE (MATERIAL DESCRIPTION)	MATERIAL LOCATION(S)
0697 (Unknown)	001	VINYL FLOOR TILE (1' X 1' BEIGE WITH WHITE AND BLACK SPECKS)	03, 04A, 121C, 122C, 123C, 124C, 125(128C, 129C, 221C, 222C, 223C, 224C, 228C, 229C, 231D, 232D, 233D, 234D, 238D, 239D
0697 (Unknown)	019	SHEET GASKET (2" - 6" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	HEAT DISTRIBUTION ROOM 1, HEAT DISTRIBUTION ROOM 2, MECHANICA ROOM 1, MECHANICAL ROOM 2, MECHANICAL ROOM 3A, OLD BOILEF ROOM
0697 (Unknown)	021	STALL PARTITIONS (GRAY CEMENT BOARD)	GIRLS TOILET G3, OLD BOILER ROOI 09D
0697 (Unknown)	036	FLOOR ADHESIVE (BLACK, UNDER 1' X 1' BEIGE WITH WHITE AND BLACK SPECKS VINYL FLOOR TILE)	03, 04A, 121C, 122C, 123C, 124C, 125(128C, 129C, 221C, 222C, 223C, 224C, 228C, 229C, 231D, 232D, 233D, 234D, 238D, 239D
0697 (Unknown)	037	FLOOR ADHESIVE (BLACK, UNDER GREEN RAISED DOT RUBBER FLOOR SHEETING)	CORRIDOR E, CORRIDOR H, STAIRW 1, 05 SUPPLY, 05A SUPPLY, 19, 20, 2(21, 22B, 22D, 22E, 27, 27B, 28, 28A, 29 30A, 31
0697 (Unknown)	039	WALL PLASTER (WHITE)	CORRIDOR F
0697 (Unknown)	041	FLOOR ADHESIVE (BROWN GLUE ON BLACK ADHESIVE, UNDER GREEN VINYL FLOOR SHEETING)	CORRIDOR B2
0697 (Unknown)	118	SHEET GASKET (4" - 6" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	09 LOBBY, 27B
0697 (Unknown)	120	ROPE GASKET (WHITE)	MECHANICAL ROOM 3A
0697K (Unknown)	128	SHEET GASKET (4" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	MR

5.0 RECOMMENDED MANAGEMENT ACTIONS

5.1 Management Planner

The recommended management actions for each ACM or assumed ACM are presented in Table 5.1. These recommendations were prepared by the Baker Management Planner identified below:



The Management Planner became accredited by successfully completing an EPA-approved course developed under Section 206(c) of Title II of the Toxic Substances Control Act. A copy of the Management Planner's accreditation certificate is located in Appendix A.

Table 5.1 includes blank Begin Date and End Date columns. These columns were included to assist the AC in documenting implementation of recommended management actions. Upon satisfactory completion of each management action, the AC will record the date in the appropriate space on Table 5.1 and forward a copy of the page to the Area Office.

5.2 Reasons for Selecting Management Actions

The rationale for selecting the management actions recommended in this report is based on guidelines presented in the EPA Rule "Asbestos-Containing Materials in Schools" and DODEA policy. The rationale is as follows:

- Significantly damaged surfacing material and miscellaneous material is likely to release asbestos fibers into the air; therefore, these material(s) should be removed and replaced with material(s) that do not contain asbestos, or encapsulated or enclosed if such action would be feasible and sufficient to protect human health and the environment.

- Damaged surfacing material and miscellaneous material may release asbestos fibers into the air; therefore, the damaged areas should be immediately repaired. If repair of the damaged area(s) is not feasible, the material should be removed and replaced with a material that does not contain asbestos, or encapsulated or enclosed if such action would be feasible and sufficient to protect human health and the environment.

- Damaged or significantly damaged thermal system insulation may release asbestos fibers into the air; therefore, the damaged areas should be repaired to inhibit asbestos fiber release. After these repairs are completed, the insulation should be maintained in an intact state and undamaged condition or removed and replaced with a material that does not contain asbestos. If repair of the damaged areas is not feasible, the material should be removed.

- ACM with a potential for damage, including thermal system insulation, surfacing material, or miscellaneous material, may release asbestos fibers into the air if damaged; therefore, the material should be properly maintained in accordance with an operations and maintenance program or removed and replaced with a material that does not contain asbestos.

- ACM with a potential for significant damage, including thermal system insulation, surfacing material, or miscellaneous material, is likely to release asbestos fibers into the air if damaged significantly; therefore, preventive measures should be taken to ensure that the material will not become significantly damaged. An operations and maintenance program should be implemented, or the material should be enclosed or encapsulated or removed and replaced as soon as possible with a material that does not contain asbestos.

- Any ACM, regardless of condition, that may be disturbed by any planned action such as maintenance, installation, and construction, or any other modification to the building, must be removed prior to conducting the planned action.

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TABLE 5.1 - RECOMMENDED MANAGEMENT ACTIONS FOR ACM

BUILDING NUMBER	HOMO. MTRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	FRI-ABLE	MATERIAL LOCATION(S)	COMMENTS	RECOMMENDED MANAGEMENT ACTION(S)	BEGIN DATE	END DATE
0697 (Unknown)	001	VINYL FLOOR TILE (1' X 1' BEIGE WITH WHITE AND BLACK SPECKS)	NO	03, 04A, 121C, 122C, 123C, 124C, 125C, 128C, 129C, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #036. THIS MATERIAL IS LOCATED BELOW EXISTING CARPET IN SOME LISTED LOCATIONS. PORTIONS OF THIS MATERIAL WERE ABATED DURING THE BUILDING RENOVATION PROJECT.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.		
0697 (Unknown)	019	SHEET GASKET (2" - 6" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	NO	HEAT DISTRIBUTION ROOM 1, HEAT DISTRIBUTION ROOM 2, MECHANICAL ROOM 1, MECHANICAL ROOM 2, MECHANICAL ROOM 3A, OLD BOILER ROOM		1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.		
0697 (Unknown)	021	STALL PARTITIONS (GRAY CEMENT BOARD)	NO	GIRLS TOILET G3, OLD BOILER ROOM, 09D	ONE STALL PARTITION IN ROOM 09D IS DAMAGED AND NEEDS TO BE REMOVED. THERE IS ALSO ONE UNINSTALLED STALL PARTITION IN THE OLD BOILER ROOM THAT NEEDS TO BE REMOVED.	1. PORTIONS OF THIS MATERIAL SHOULD BE REMOVED WITHIN ONE YEAR OF RECEIPT OF THIS REPORT. 2. THIS MATERIAL COULD BE REMOVED BY QUALIFIED MAINTENANCE PERSONNEL WHO HAVE RECEIVED TRAINING IN SMALL SCALE, SHORT DURATION ABATEMENT PROJECTS. 3. FOR THE REMAINDER OF THIS MATERIAL, NO IMMEDIATE ABATEMENT IS REQUIRED. 4. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THE REMAINDER OF THIS MATERIAL. 5. CONTINUE SURVEILLANCE OF THE REMAINDER OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.		
0697 (Unknown)	036	FLOOR ADHESIVE (BLACK, UNDER 1' X 1' BEIGE WITH WHITE AND BLACK SPECKS VINYL FLOOR TILE)	NO	03, 04A, 121C, 122C, 123C, 124C, 125C, 128C, 129C, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	THIS IS THE ADHESIVE FOR MATERIAL #001. PORTIONS OF THIS MATERIAL WERE ABATED DURING THE BUILDING RENOVATION PROJECT.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.		
0697 (Unknown)	037	FLOOR ADHESIVE (BLACK, UNDER GREEN RAISED DOT RUBBER FLOOR SHEETING)	NO	CORRIDOR E, CORRIDOR H, STAIRWELL 1, 05 SUPPLY, 05A SUPPLY, 19, 20, 20A, 21, 22B, 22D, 22E, 27, 27B, 28, 28A, 29, 30, 30A, 31	THIS IS THE ADHESIVE FOR MATERIAL #005.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.		

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TABLE 5.1 - RECOMMENDED MANAGEMENT ACTIONS FOR ACM

BUILDING NUMBER	HOMO. MTRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	FRI-ABLE	MATERIAL LOCATION(S)	COMMENTS	RECOMMENDED MANAGEMENT ACTION(S)	BEGIN DATE	END DATE
0697 (Unknown)	039	WALL PLASTER (WHITE)	NO	CORRIDOR F		1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.		
0697 (Unknown)	041	FLOOR ADHESIVE (BROWN GLUE ON BLACK ADHESIVE, UNDER GREEN VINYL FLOOR SHEETING)	NO	CORRIDOR B2	AT THE TIME OF THE 1997, 2000, AND 2003 AHERA INSPECTIONS, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED DUE TO THE APPLICATION OF A NEW CONCRETE FLOORING PRODUCT. IT WAS ASSUMED THAT THIS MATERIAL STILL REMAINS WITHIN THE BUILDING.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.		
0697 (Unknown)	118	SHEET GASKET (4" - 6" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	NO	09 LOBBY, 27B	THIS MATERIAL IS LOCATED WITHIN THE PIPE CHASE INSIDE 09 LOBBY.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.		
0697 (Unknown)	120	ROPE GASKET (WHITE)	NO	MECHANICAL ROOM 3A	THIS MATERIAL IS LOCATED ON PIPING AND IS USED AS A SPACER FOR CLAMPS.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.		
0697K (Unknown)	128	SHEET GASKET (4" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	NO	MR		1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.		

6.0 REMOVED ACM

When removal management actions have been initiated, the AC should provide a written account of any identified ACM that has been removed from the location. This written account must be updated as removal management actions are completed. Table 6.1 lists the ACM determined to be remaining at Mannheim American Elementary School at the completion of the 2003 inspection. The AC should update Table 6.1 each time a removal management action is completed by documenting the date the action was completed. A copy of the updated Table 6.1 should be forwarded to the Area Office.

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TABLE 6.1 - LISTING OF ACM

BUILDING NUMBER	HOMO. MTRL. NO.	MATERIAL TYPE	MATERIAL LOCATION(S)	MATERIAL QUANTITY
0697 (Unknown)	001	VINYL FLOOR TILE	03, 04A, 121C, 122C, 123C, 124C, 125C, 128C, 129C, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	18,663 SF
0697 (Unknown)	019	SHEET GASKET	HEAT DISTRIBUTION ROOM 1, HEAT DISTRIBUTION ROOM 2, MECHANICAL ROOM 1, MECHANICAL ROOM 2, MECHANICAL ROOM 3A, OLD BOILER ROOM	222 EA
0697 (Unknown)	021	STALL PARTITIONS	GIRLS TOILET G3, OLD BOILER ROOM, 09D	220 SF
0697 (Unknown)	036	FLOOR ADHESIVE	03, 04A, 121C, 122C, 123C, 124C, 125C, 128C, 129C, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	18,663 SF
0697 (Unknown)	037	FLOOR ADHESIVE	CORRIDOR E, CORRIDOR H, STAIRWELL 1, 05 SUPPLY, 05A SUPPLY, 19, 20, 20A, 21, 22B, 22D, 22E, 27, 27B, 28, 28A, 29, 30, 30A, 31	7,426 SF
0697 (Unknown)	039	WALL PLASTER	CORRIDOR F	250 SF
0697 (Unknown)	041	FLOOR ADHESIVE	CORRIDOR B2	4,576 SF
0697 (Unknown)	118	SHEET GASKET	09 LOBBY, 27B	18 EA
0697 (Unknown)	120	ROPE GASKET	MECHANICAL ROOM 3A	1 EA
0697K (Unknown)	128	SHEET GASKET	MR	4 EA

7.0 PLANNED ACTIVITIES

7.1 Plan for Reinspection

Within three years of the effective date of this Asbestos Management Plan and triennially thereafter, all known or assumed ACM remaining in each building still used by DODDS should be reinspected by an accredited inspector. The purpose of the reinspection is to reassess any ACM remaining in each building. The reinspection will be performed in accordance with Title 40 CFR, Section 763.85(b), and a record of the reinspection will be incorporated into the Asbestos Management Plan within 90 days of the reinspection and will contain the following information:

- Date of the reinspection
- Changes in the condition of known or assumed ACM
- Locations where samples were collected
- Assessments or reassessments of friable ACM
- Signature(s) and certification(s) of inspector(s)

7.2 Plan for Operations and Maintenance

The Operations and Maintenance (O&M) Program has been developed for Mannheim American Elementary School for implementation by building maintenance and custodial staff. The O&M Program is described in detail in the O&M Manual. A copy of the O&M Manual was attached to this Asbestos Management Plan when it was transmitted to Ms. Bonnie Bowen-Hannan. The O&M Program includes:

- Procedures for initial and additional cleaning of areas where friable ACM is located.

- Procedures to protect building occupants during operations and maintenance activities disturbing friable and nonfriable ACM.

- Procedures to follow if friable ACM is dislodged and fibers are released.

7.3 Plan for Periodic Surveillance

Within six months of the effective date of this Asbestos Management Plan, and at least once every six months thereafter, a qualified person will visually inspect all identified known or assumed ACM. Periodic surveillance involves a visual inspection to note changes in condition. A record of the surveillance, including the date and any changes in the condition of materials, will be maintained by the AC and submitted to the Area Office. The periodic surveillance records are located in Section 10, Table 10.3, of this Asbestos Management Plan.

7.4 Recommendations for Initial and Additional Cleaning

The following initial and additional cleaning practices should be instituted:

- Initial cleaning. Unless the building has been cleaned using equivalent methods within the previous six months, all areas of a school building where friable ACM, damaged or significantly damaged thermal system insulation ACM, or friable assumed ACM are present shall be cleaned before the initiation of any management action, other than O&M activities or repair, according to the following procedures:

    - High efficiency particulate air (HEPA)-vacuum and steam-clean all carpets.
    - HEPA-vacuum or wet-clean all other floors and all other horizontal surfaces.
    - Dispose of all debris, filters, mopheads, and cloths in sealed, leakproof containers.

- Additional cleaning. Unless initial cleaning has been accomplished within the previous six months, all areas of a building where friable damaged or significantly damaged ACM, damaged or significantly damaged asbestos-containing thermal system insulation, or friable damaged or significantly damaged assumed ACM are present, shall be cleaned. Cleaning methods used shall be equivalent to initial cleaning practices.

Table 7.1 identifies the areas requiring initial or additional cleaning as described in the O&M Manual.

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Table 7.1 Area(s) Requiring Initial or Additional Cleaning

THERE ARE NO AREAS WHICH REQUIRE INITIAL OR ADDITIONAL CLEANING IN THIS FACILITY

8.0 NOTIFICATION OF EMPLOYEES AND BUILDING OCCUPANTS

Information concerning inspections, reinspections, management actions, and post management action activities (e.g., surveillance activities) must be provided to employees and building occupants (or their legal guardians) on an annual basis. Exhibit 8.1 is a sample notification letter. The AC must maintain a record of all notification efforts that have been undertaken. The notification record is contained in Table 8.1. The AC must update this record after each annual notification. Copies of notification letters and any additional public information issued by the AC will be inserted into Appendix B of this Asbestos Management Plan. The AC will forward copies of the documents to the Area Office.

EXHIBIT 8.1

SAMPLE NOTICE FOR AHERA INSPECTION OR REINSPECTION

(Letterhead)
(Date)

MEMORANDUM FOR PARENTS AND STAFF

SUBJECT: Notification of AHERA inspection (or reinspection)

As required by the Asbestos Hazard Emergency Response Act (AHERA) of 1986, our buildings have been inspected or reinspected for asbestos-containing materials (ACM). The most recent inspection was conducted on **[take date from most recent Asbestos Management Report]** in accordance with Environmental Protection Agency (EPA) regulations and DoDEA policy.

The results of the inspection or reinspection indicate we have the following asbestos materials in our building(s): **[refer to table 6.1 of the Asbestos Management Plan addendum]**

THE FOLLOWING ITALICIZED TEXT IS AN EXAMPLE OF HOW TO PRESENT THE INFORMATION:

- *vinyl floor tiles in the administrative offices, teachers' lounge, and first floor classrooms and hallways of Bldg 2001,*

- *insulation on steam pipes in the boiler room of Bldg 2002,*

- *cement roof panels on the walkway between Bldgs 2001 and 2002.*

The insulation on the steam pipes has been recommended for removal. Project specifications are being prepared and the project is expected to be completed during the summer recess.

The cement roof panels were removed during the exterior renovations over the summer recess this year. The inspectors found the vinyl floor tiles to be in good condition and indicated that there is no reason to remove them at this time.

As required by EPA, a periodic surveillance program is in effect for asbestos materials that remain in place and their condition will be closely monitored.

A copy of the Asbestos Management Plan is kept in our office and is available for your review. If you have any questions or concerns, please do not hesitate to contact me.

John Q. Smith
Principal

Mannheim American Elementary School

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Table 8.1

Notification Efforts Completed by Asbestos Coordinator

Date	Activity	Notification To	Notification By	Comments

9.0 EVALUATION OF RESOURCE REQUIREMENTS

9.1 O&M Program Supplies

The cleaning and preventive measures specified in this Asbestos Management Plan require the availability of disposable and non-disposable items. Table 9.1 lists the recommended equipment inventory required for use in asbestos management activities. This equipment must be available for use by properly trained maintenance and custodial staff.

Table 9.1
Recommended Inventory for
Asbestos O&M Program Equipment

Item	Quantity	Unit Cost	Total Estimated Cost
"Danger Asbestos" Labeled Bags 75/Roll	1	$52.00/Roll	$52.00
6 mil Polyethylene Sheeting 10' X 100' Roll	1	$29.00/Roll	$29.00
Bridging Encapsulant 5 Gal Container	1	$188.00/Container	$188.00
Duct Tape 10/Box	1	$55.00/Box	$55.00
Garden Sprayer	1	$30.00/Sprayer	$30.00
Half Face Respirators	2	$23.00/Respirator	$46.00
HEPA Filter Vacuum	1	$1,030.00/Vacuum	$1,030.00
P100 Respirator Cartridges 10/Box	1	$42.00/Box	$42.00
Signs and Placards	1	$60.00/Set	$60.00
Tyvek Suits 25/Box	1	$110.00/Box	$110.00

9.2 Resource Requirements for Management Actions

Table 9.2 defines the estimated resources required to carry out the recommended management actions for all homogeneous areas found to contain ACM.

To assist in understanding the information provided in Table 9.2, a description of each column heading is included below.

BUILDING NUMBER - Identifies each building included in the report. If the date of construction was known, this information is presented in parenthesis after the building number.

HOMO. MATRL. NO. (Homogeneous Material Number) - Numerical designation assigned to each homogeneous material (material that is uniform in color and texture, serves the same function, and was installed at the same time) encountered in a building.

MATERIAL TYPE - Brief description of the material, followed by information on distinguishing characteristics which may include function, size, color, shape, etc., if necessary.

MATERIAL LOCATION(S) - Short description detailing the specific location of the homogeneous material area.

ABATEMENT ITEM - Numerical designation assigned to each item required to carry out the management action. Appendix E contains an Abatement Item Listing providing a detailed description of each abatement item.

UNIT COST - Estimated unit cost associated with each abatement item. Appendix E contains an Abatement Item Listing providing an estimated unit cost for each abatement item.

ESTIMATED QUANTITY - Estimated quantity of the abatement item required to perform the task.

ITEM COST - Management action cost obtained by multiplying UNIT COST by ESTIMATED QUANTITY.

ESTIMATED MATERIAL COST - Estimated total cost for each asbestos material obtained by adding all ITEM COSTS for each material.

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TABLE 9.2 - ESTIMATED RESOURCES FOR RECOMMENDED MANAGEMENT ACTIONS

BUILDING NUMBER	HOMO. MATERIAL NUMBER	MATERIAL TYPE	MATERIAL LOCATION(S)	ABATEMENT ITEM	UNIT COST	ESTIMATED QUANTITY		ITEM COST	ESTIMATED MATERIAL COST
0697 (Unknown)	001	VINYL FLOOR TILE	03, 04A, 121C, 122C, 123C, 124C, 125C, 128C, 129C, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	200	$67.50	24.00	HRS	$1,620.00	$1,620.00
0697 (Unknown)	019	SHEET GASKET	HEAT DISTRIBUTION ROOM 1, HEAT DISTRIBUTION ROOM 2, MECHANICAL ROOM 1, MECHANICAL ROOM 2, MECHANICAL ROOM 3A, OLD BOILER ROOM	200	$67.50	3.00	HRS	$202.50	$202.50
0697 (Unknown)	021	STALL PARTITIONS	GIRLS TOILET G3, OLD BOILER ROOM, 09D	54	$27.94	2.00	SF	$55.88	
				200	$67.50	3.00	HRS	$202.50	$258.38
0697 (Unknown)	036	FLOOR ADHESIVE	03, 04A, 121C, 122C, 123C, 124C, 125C, 128C, 129C, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	200	$67.50	24.00	HRS	$1,620.00	$1,620.00
0697 (Unknown)	037	FLOOR ADHESIVE	CORRIDOR E, CORRIDOR H, STAIRWELL 1, 05 SUPPLY, 05A SUPPLY, 19, 20, 20A, 21, 22B, 22D, 22E, 27, 27B, 28, 28A, 29, 30, 30A, 31	200	$67.50	24.00	HRS	$1,620.00	$1,620.00
0697 (Unknown)	039	WALL PLASTER	CORRIDOR F	200	$67.50	1.50	HRS	$101.25	$101.25
0697 (Unknown)	041	FLOOR ADHESIVE	CORRIDOR B2	200	$67.50	18.00	HRS	$1,215.00	$1,215.00
0697 (Unknown)	118	SHEET GASKET	09 LOBBY, 27B	200	$67.50	1.50	HRS	$101.25	$101.25
0697 (Unknown)	120	ROPE GASKET	MECHANICAL ROOM 3A	200	$67.50	1.50	HRS	$101.25	$101.25
0697K (Unknown)	128	SHEET GASKET	MR	200	$67.50	1.50	HRS	$101.25	$101.25

MANNHEIM AMERICAN ELEMENTARY SCHOOL
HE 3469

TABLE 9.2 - ESTIMATED RESOURCES FOR RECOMMENDED MANAGEMENT ACTIONS

BUILDING NUMBER	HOMO. MATERIAL NUMBER	MATERIAL TYPE	MATERIAL LOCATION(S)	ABATEMENT ITEM	UNIT COST	ESTIMATED QUANTITY	ITEM COST	ESTIMATED MATERIAL COST

TOTAL COST $6,941.00

10.0 MANDATORY RECORDS

The EPA rule, "Asbestos-Containing Materials in Schools", Title 40 CFR, Part 763, requires that certain records be maintained in the administrative offices of the school and the LEA as part of the Asbestos Management Plan. For each area where ACM has been removed, the LEA will retain the required records for 3 years beyond the next reinspection. When records are updated, the AC will forward a copy of the updated record to the Area Office.

10.1 Preventive Measures and Management Actions

The AC will maintain the required records by entering the appropriate information on Table 5.1 in Section 5.0 of this Asbestos Management Plan. Table 5.1 will be updated as the preventive measures management actions are completed.

Records of any air monitoring conducted in conjunction with the asbestos management program are documented on Table 10.1. Appendix C of this Asbestos Management Plan is reserved for copies of the laboratory analysis reports of any air samples collected.

10.2 Training

A complete record of employee training is to be maintained on Table 10.2. As training is completed, the AC will record the appropriate information on Table 10.2.

10.3 Periodic Surveillance

Each time periodic surveillance as defined under Title 40 CFR, Section 763.92(b), is performed, the AC will record in the appropriate spaces on Table 10.3 the name of the individual(s) conducting the surveillance activity, the location and date of the surveillance activity, and changes in the condition of the materials.

10.4 Cleaning

Each time cleaning activities as described under Title 40 CFR, Section 763.91(c), are performed, the AC will record in the appropriate spaces on Table 10.4, the material and cleaning methods used, the date of the cleaning, the locations cleaned, and the name of the individual(s) performing the cleaning.

10.5 Operations and Maintenance

Each time operations and maintenance activities involving ACM as defined under Title 40 CFR, Section 763.91(d), are performed in this school, the AC will record on Table 10.5 the name of the individual(s) performing the activity, the start and completion dates of the activity, the location where the activity occurred, a description of the activity, including preventive measures used, and, if ACM is removed, the name and location of the storage or disposal site of the ACM.

10.6 Major Asbestos Activity

Each time a major asbestos activity as defined under Title CFR, Section 763.91(e), is performed, the AC will record on Table 10.6 the name and signature, the State of accreditation, and, if applicable, the accreditation number of the individual(s) performing the activity, the start and completion dates, the location where the activity occurred, a description of the activity including preventive measures used, and, if ACM is removed, the name and location of the storage or disposal site of the ACM.

10.7 Fiber Release Episodes

For each asbestos fiber release episode as defined under Title 40 CFR, Section 763.91(f), the AC will record on Table 10.7 the date and location of the episode, the severity of release, the preventive measures or management actions taken, the name of the individual(s) performing the work, and the name and location of the storage or disposal site of any ACM removed.

TABLE 10.1 AIR SAMPLING RECORD

Name/Signature of Sample Collector	Sample Location	Name/Address of Laboratory	Date of Analysis	Method of Analysis	Result	Analyst Name & Title

TABLE 10.2 TRAINING RECORD

SCHOOL TO INSERT TRAINING RECORDS

TABLE 10.3 PERIODIC SURVEILLANCE RECORD

Material	Surveillance Date	Location	Previous Condition	Current Condition	Name of Inspector

TABLE 10.4 CLEANING ACTIVITIES

Material	Cleaning Date	Location Cleaned	Individual Performing Cleaning

TABLE 10.5 OPERATIONS AND MAINTENANCE ACTIVITY RECORD

Name of Person Conducting the Activity	Start Date	Completion Date	Activity Location	Activity Description	Storage or Disposal Site for ACM

TABLE 10.6 MAJOR ASBESTOS ACTIVITIES

Name and Signature	State of Accreditation	Start Date	Completion Date	Activity Location	Activity Description	Storage or Disposal Site for ACM

TABLE 10.7 FIBER RELEASE EPISODES RECORD

Location	Date	Major or Minor Release	Management Action or Preventive Measures	Individuals Performing Work	Storage or Disposal Site for ACM

APPENDIX A

MANAGEMENT PLANNER CERTIFICATE

Professional Training Associates, Inc.

ASBESTOS MANAGEMENT PLANNER

Initial Training Course

Jeffrey C. Kolich

has successfully completed the Asbestos Management Planner Initial Training Course and passed the course examination for purposes of accreditation under section 206 of Title II of the Toxic Substance Control Act (TSCA). Conducted by Professional Training Associates, Inc., 46 South Linden Street, Suite C, Duquesne, PA 15110, (412) 460-0266.

KOLICHJ
MPI061903DUQUESN

Location: **Duquesne, PA**

Course Date: **June 19 - June 20, 2003**

Course Director: _____
John J. Curcio

Examination: **June 20, 2003**

Expiration: **June 20, 2004**

Certificate Number: **PTA 03 - 14 - 12067**

APPENDIX B

COPIES OF ASBESTOS-RELATED ACTIVITY NOTIFICATION DOCUMENTS

APPENDIX C

AIR SAMPLES - LABORATORY ANALYSIS REPORTS

APPENDIX D

GLOSSARY

GLOSSARY

Abatement	Procedures which are implemented to remove asbestos materials from a damaged area, functional space, or a homogeneous area.
Asbestos	A group of naturally occurring minerals that can be separated into fibers which are flexible, heat resistant and chemically inert. The following asbestos minerals are used commercially: Actinolite, Amosite, Anthophyllite, Chrysotile, Crocidolite, and Tremolite.
Asbestos-Containing Material (ACM)	Per EPA regulations, any material that contains more than 1.0 percent asbestos by weight.
Asbestos Coordinator (AC)	The person at the local level who serves as a focal point or liaison for asbestos activities. Per DODEA Asbestos Management Policy, this person is the Principal of a school, or District Superintendent at a DSO.
Asbestos Hazard Emergency Response Act (AHERA)	An Act passed by Congress and signed by the President in October 1986 which requires the EPA to promulgate regulations requiring inspections for ACM, development of asbestos management plans, and management actions with respect to friable ACM in U.S. schools including DODDS.
Asbestos Management Plan	Required by AHERA, a plan detailing the steps taken to control potential asbestos hazards in school buildings.

Asbestos Management Program	A program instituted by DODEA to comply with AHERA and to administer long-term control and surveillance of all ACM in school buildings.
Containment System	A separation or barrier system that prevents the movement of asbestos-contaminated air from the abatement work area into uncontaminated areas.
Encapsulation	The treatment of ACM with a penetrating or surface sealant in order to minimize the potential for asbestos fiber release.
Enclosure	The system of containment that creates an airtight seal or barrier between the ACM and the adjacent space.
EPA	Environmental Protection Agency
Friable	Any material which, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure.
Homogeneous Sampling Area	An area of surfacing material, thermal system insulation material, or miscellaneous material that is uniform in color or texture, serves the same function, and was installed at the same time.
Removal	The removal of ACM from any surface or component in all or a portion of a building.
Operations and Maintenance (O&M) Program	A program specifically designed to clean up asbestos fibers previously released, to prevent the release of fibers by minimizing ACM disturbance or damage, and to monitor the condition of the ACM.

Surveillance

Periodic reinspection of friable and non-friable ACM on a frequency consistent with the requirements of the AHERA regulations.

APPENDIX E

ABATEMENT ITEM LISTING

ABBREVIATIONS USED ON THE ABATEMENT ITEM LISTING:

EA -- EACH

LF -- LINEAR FOOT

LS -- LUMP SUM

MH -- MAN HOUR

SF -- SQUARE FOOT

H -- HOUR

PR -- PAIR

ABATEMENT ITEM LISTING

Item Number	Item Description	Unit	Unit Price
01	Removal and disposal of asbestos-containing vinyl floor tile. Removal by full containment method.	SF	$26.50
02	Removal and disposal of asbestos-containing vinyl floor sheeting. Removal by full containment method.	SF	$27.22
03	Removal and disposal of asbestos-containing floor adhesive. Removal by full containment method.	SF	$26.50
04	Removal and disposal of asbestos-containing cement flooring. Removal by full containment method.	SF	$33.70
05	Removal and disposal of asbestos-containing subfloor material. Removal by full containment method.	SF	$32.98
06	Removal and disposal of asbestos-containing cove base adhesive. Removal by full containment method.	SF	$26.50
07	Removal and disposal of asbestos-containing cove base. Removal by full containment method.	SF	$26.50
10	Removal and disposal of asbestos-containing wall plaster. Removal by full containment method.	SF	$30.10
11	Removal and disposal of asbestos-containing wallboard. Removal by full containment method.	SF	$27.94
12	Removal and disposal of asbestos-containing cement wall panels. Removal by full containment method.	SF	$28.66
13	Removal and disposal of asbestos-containing acoustical wall panels. Removal by full containment method.	SF	$29.38
14	Removal and disposal of asbestos-containing fabric wall covering. Removal by full containment method.	SF	$30.10
15	Removal and disposal of asbestos-containing paint. Removal by full containment method.	SF	$30.10
16	Removal and disposal of asbestos-containing joint compound. Removal by full containment method.	SF	$29.38

ABATEMENT ITEM LISTING

Item Number	Item Description	Unit	Unit Price
17	Removal and disposal of asbestos-containing caulk. Removal by full containment method.	LF	$31.90
18	Removal and disposal of asbestos-containing wall insulation. Removal by full containment method.	SF	$27.58
19	Removal and disposal of asbestos-containing fireproofing. Removal by full containment method.	SF	$31.18
20	Removal and disposal of asbestos-containing ceiling plaster. Removal by full containment method.	SF	$30.82
21	Removal and disposal of asbestos-containing ceiling board. Removal by full containment method.	SF	$30.82
22	Removal and disposal of asbestos-containing cement ceiling panels. Removal by full containment method.	SF	$30.10
23	Removal and disposal of asbestos-containing ceiling tiles. Removal by full containment method.	SF	$29.38
24	Removal and disposal of asbestos-containing ceiling insulation. Removal by full containment method.	SF	$27.22
25	Removal and disposal of asbestos-containing ceiling rough finish. Removal by full containment method.	SF	$31.54
26	Removal and disposal of asbestos-containing wall and ceiling plaster. Removal by full containment method.	SF	$30.82
27	Removal and disposal of asbestos-containing cement wall and ceiling panels. Removal by full containment method.	SF	$28.66
28	Removal and disposal of asbestos-containing wall and ceiling board. Removal by full containment method.	SF	$29.02
29	Removal and disposal of asbestos-containing cement wall and ceiling tile. Removal by full containment method.	SF	$30.10
30	Removal and disposal of asbestos-containing thermal pipe insulation. Removal by full containment method.	LF	$36.58

ABATEMENT ITEM LISTING

Item Number	Item Description	Unit	Unit Price
31	Removal and disposal of asbestos-containing thermal fitting insulation. Removal by full containment method.	EA	$50.98
32	Removal and disposal of asbestos-containing thermal tape. Removal by full containment method.	LF	$30.82
33	Removal and disposal of asbestos-containing cement pipe. Removal by full containment method.	LF	$33.70
34	Removal and disposal of asbestos-containing sheet gasket. Removal by full containment method.	SF	$29.38
35	Removal and disposal of asbestos-containing rope gasket. Removal by full containment method.	SF	$35.14
36	Removal and disposal of asbestos-containing flex connector. Removal by full containment method.	EA	$50.98
37	Removal and disposal of asbestos-containing duct insulation. Removal by full containment method.	SF	$27.94
38	Removal and disposal of asbestos-containing cement duct. Removal by full containment method.	LF	$31.54
39	Removal and disposal of asbestos-containing fire dampers. Removal method is to remove the entire fire damper intact.	EA	$35.86
40	Removal and disposal of asbestos-containing internal boiler insulation. Removal by full containment method.	SF	$36.58
41	Removal and disposal of asbestos-containing external boiler insulation. Removal by full containment method.	SF	$29.38
42	Removal and disposal of asbestos-containing tank insulation. Removal by full containment method.	SF	$27.94
43	Removal and disposal of asbestos-containing breeching/stack insulation. Removal by full containment method.	SF	$29.38

ABATEMENT ITEM LISTING

Item Number	Item Description	Unit	Unit Price
44	Removal and disposal of asbestos-containing thermal pipe and fitting insulation. Removal by full containment method.	LF	$30.82
45	Removal and disposal of asbestos-containing mechanical equipment insulation. Removal by full containment method.	SF	$29.38
46	Removal and disposal of asbestos-containing electrical wire insulation. Removal by full containment method.	LF	$27.94
47	Removal and disposal of asbestos-containing lamp reflectors. Removal method is to remove the lamp intact.	EA	$25.78
50	Removal and disposal of asbestos-containing dust/debris. Removal by full containment method.	SF	$33.70
51	Removal and disposal of asbestos-containing kiln insulation. Removal by full containment method.	SF	$35.14
52	Removal and disposal of asbestos-containing fire door lining. Removal method is to remove the fire door intact.	EA	$36.58
53	Removal and disposal of asbestos-containing stage curtains. Removal by full containment method.	SF	$27.22
54	Removal and disposal of asbestos-containing stall partitions. Removal by full containment method.	SF	$27.94
55	Removal and disposal of asbestos-containing splash panels. Removal by full containment method.	SF	$27.58
56	Removal and disposal of asbestos-containing windowsills. Removal by full containment method.	SF	$32.26
57	Removal and disposal of asbestos-containing laboratory fume hoods. Removal by full containment method.	SF	$29.38
58	Removal and disposal of asbestos-containing gloves.	PR	$22.18
59	Removal and disposal of asbestos-containing fire blankets.	EA	$26.50

ABATEMENT ITEM LISTING

Item Number	Item Description	Unit	Unit Price
60	Removal and disposal of asbestos-containing heat shields. Removal by full containment method.	SF	$26.86
61	Removal and disposal of asbestos-containing napkin incinerator lining. Removal method is to remove the napkin incinerator intact.	EA	$35.14
62	Removal and disposal of asbestos-containing chalkboards. Removal by partial containment method.	SF	$27.22
63	Removal and disposal of asbestos-containing tabletops. Removal by partial containment method.	SF	$27.22
64	Removal and disposal of asbestos-containing sink coating.	EA	$30.10
65	Removal and disposal of asbestos-containing burner pad.	EA	$22.18
66	Removal and disposal of asbestos-containing elevator brake shoes.	EA	$35.14
67	Removal and disposal of asbestos-containing lab oven insulation. Removal by full containment method.	SF	$32.98
68	Removal and disposal of asbestos-containing safe, cabinet, desk insulation. Removal by full containment method.	SF	$500.00
70	Removal and disposal of asbestos-containing exterior soils. Removal by modified containment method.	SF	$30.82
71	Removal and disposal of asbestos-containing exterior siding. Removal by modified containment method.	SF	$29.38
72	Removal and disposal of asbestos-containing exterior siding shingles. Removal by modified containment method.	SF	$29.02
73	Removal and disposal of asbestos-containing soffits. Removal by modified containment method.	SF	$28.66
74	Removal and disposal of asbestos-containing facia. Removal by modified containment method.	SF	$29.38

ABATEMENT ITEM LISTING

Item Number	Item Description	Unit	Unit Price
75	Removal and disposal of asbestos-containing exterior plasters. Removal by modified containment method.	SF	$35.14
76	Removal and disposal of asbestos-containing walkway ceiling. Removal by modified containment method.	SF	$28.66
77	Removal and disposal of asbestos-containing cement roofing panels. Removal by modified containment method.	SF	$29.38
78	Removal and disposal of asbestos-containing asphaltic roofing materials. Removal by modified containment method.	SF	$30.10
79	Removal and disposal of asbestos-containing exterior caulks. Removal by modified containment method.	SF	$32.26
80	Removal and disposal of asbestos-containing louvers. Removal by modified containment method.	SF	$29.38
81	Removal and disposal of asbestos-containing cement corrugated roof. Removal by modified containment method.	SF	$28.66
82	Removal and disposal of asbestos-containing asphaltic vapor barrier. Removal by modified containment method.	SF	$29.02
83	Removal and disposal of asbestos-containing chimney lining. Removal by full containment method.	SF	$36.58
84	Removal and disposal of asbestos-containing coal composition ceiling. Removal by full containment method.	SF	$31.18
85	Removal and disposal of asbestos-containing ceiling tile adhesive. Removal by full containment method.	SF	$29.38
86	Removal and disposal of asbestos-containing carpet. Removal by full containment method.	SF	$26.50
87	Removal and disposal of asbestos-containing cement wall. Removal by full containment method.	SF	$28.66

ABATEMENT ITEM LISTING

Item Number	Item Description	Unit	Unit Price
88	Removal and disposal of asbestos-containing wall tile adhesive. Removal by full containment method.	SF	$29.38
89	Removal and disposal of asbestos-containing wall tile. Removal by full containment method.	SF	$29.38
90	Removal and disposal of asbestos-containing wall and ceiling tile. Removal by full containment method.	SF	$29.38
91	Removal and disposal of asbestos-containing wall and ceiling tile adhesive. Removal by full containment method.	SF	$29.38
92	Removal and disposal of other asbestos-containing thermal system insulation. Removal by full containment method.	LF	$36.58
93	Removal and disposal of other asbestos-containing surfacing material. Removal by full containment method.	SF	$30.82
94	Removal and disposal of other asbestos-containing miscellaneous material. Removal by full containment method.	SF	$26.50
100	Conduct repair activities for an asbestos-containing material. Repair activities could include small-scale removal, small-scale encapsulation, small-scale enclosure, and/or repair of damaged areas. Hourly rate includes a 2-person, fully equipped crew to conduct repair activities.	HR	$129.15
200	Conduct periodic surveillance of the asbestos-containing material. Periodic surveillance is anticipated to be conducted semiannually for 3 years.	MH	$67.50
201	Institute an operations and maintenance program. Start-up costs include HEPA vacuum, glove bags, plastic, disposal, etc.	LS	$4,050.00
202	Restock an existing operations and maintenance program to replace depleted supplies.	LS	$1,080.00

APPENDIX F

U.S. EPA FINAL RULE:
ASBESTOS-CONTAINING MATERIALS IN SCHOOLS

INSERT INFORMATION FROM ORIGINAL ASBESTOS MANAGEMENT PLAN

DEPARTMENT OF DEFENSE
EDUCATION ACTIVITY
ASBESTOS MANAGEMENT PROGRAM

2003
Operations and Maintenance Manual

for

Mannheim American Elementary School
Mannheim-Kaefertal, Germany
HE 3469

Prepared For:

Department of Defense Education Activity
Logistics Division
4040 North Fairfax Drive
Arlington, Virginia 22203-1635

Prepared By:

Baker Environmental, Inc.
Airside Business Park
100 Airside Drive
Moon Township, PA 15108

Under Contract With:

U.S. Army Corps of Engineers
Transatlantic Programs Center
Winchester, Virginia

OPERATIONS AND MAINTENANCE MANUAL
FOR
MANNHEIM AMERICAN ELEMENTARY SCHOOL
HE 3469

TABLE OF CONTENTS

IMPORTANT FOREWORD

The information presented herein, together with historical records for this location, satisfies the reporting requirements of the AHERA legislation and DODEA policy regarding Operations and Maintenance Manuals.

FOR A SUMMARY TABULATION OF WHERE ASBESTOS WAS FOUND, AND WHAT SHOULD BE DONE ABOUT IT, PLEASE REFER TO TABLE 5.1 PRINTED ON BLUE-TINTED PAPER.

Please also note that not all building materials have been tested. Examples of this may be materials which are hidden from view, inaccessible, or where sampling would be destructive. **THEREFORE, THERE IS NO ASSURANCE THAT UNTESTED MATERIALS ARE ASBESTOS-FREE.**

1.0 INTRODUCTION

The Department of Defense Education Activity (DODEA) has developed and implemented an Asbestos Management Program to help ensure the safety of the occupants of Mannheim American Elementary School and to comply with U.S. Environmental Protection Agency (EPA) regulations issued in 1987 as required by the Asbestos Hazard Emergency Response Act (AHERA).

Implementation of an Operations and Maintenance (O&M) Program is required whenever materials with the potential to release asbestos fibers are found in the buildings. The primary objective of this O&M Manual is to describe work practices and procedures that will prevent the release of asbestos fibers during routine building maintenance and janitorial activities.

This O&M Manual describes initial and periodic cleaning procedures to be utilized in building areas containing asbestos. In addition, it includes descriptions of maintenance and repair procedures that must be followed by custodial and maintenance personnel who work with asbestos-containing materials (ACM).

The Local Education Agency (LEA) Representative responsible for carrying out the O&M Program, as described in the EPA regulations (Title 40 Code of Federal Regulations [CFR] Part 763), is:

Ms. Liisa M. White
Department of Defense Education Activity
Logistics Division/Facilities Branch
4040 North Fairfax Drive
Arlington, VA 22203-1635
(703) 696-3850 (ext. 1801)
(703) 696-4030 (Fax)

The Asbestos Coordinator (AC) designated to carry out the duties of the LEA at Mannheim American Elementary School is:

Ms. Bonnie Bowen-Hannan
Mannheim American Elementary School
Unit 29938
APO AE 09086

Telephone: 49-621-722109
Telefax: 49-621-723905

2.0 BACKGROUND: ASBESTOS CHARACTERISTICS AND HEALTH EFFECTS

Asbestos is the common name for a group of naturally occurring fibrous mineral silicates. Because it is noncombustible and has low thermal conductivity, asbestos has been used extensively in the construction industry in a wide variety of applications.

There are six different types of asbestos: chrysotile, which accounts for approximately 90 percent of all commercially used asbestos; amosite and crocidolite, which are also commonly found in commercial and construction products; and tremolite, actinolite, and anthophyllite which are less commonly used. Asbestos was typically used as a component of materials, such as thermal insulation on pipes, boilers, and air handling ducts, and sprayed-on or troweled-on surfacing materials. Asbestos may also be found in miscellaneous materials such as fire-retardant blankets, cloths and textiles, roofing felts, plasters, cementitious tiles, floor tiles, and flooring adhesives. Damaged or deteriorated ACM may release microscopic fibers which can remain suspended in the air and potentially be inhaled into the lungs.

Inhalation of asbestos fibers has been linked to the development of certain respiratory diseases and of cancers of various internal organs including the lungs, esophagus, larynx, oral cavity, stomach, colon, and kidney. The three most common asbestos-related diseases are: asbestosis (a fibrous scarring of the lungs), lung cancer, and mesothelioma (a cancer of the lining of the chest or abdominal cavity). These diseases do not develop immediately after inhalation of asbestos fibers; it may be 20 years or more before symptoms appear. No safe level of asbestos exposure has yet been determined. Smoking, combined with exposure to asbestos, significantly increases the risk of developing respiratory diseases and cancers. Past studies of unprotected asbestos workers in occupational settings have shown that smoking combined with high levels of exposure to asbestos can increase the risk for development of asbestos-related diseases. An increase in risk of up to 50 times the risk level observed for non-smoking asbestos workers has been documented.

3.0 OPERATIONS AND MAINTENANCE PROGRAM ELEMENTS

The following sections describe the basic practices, procedures, and recommendations of the O&M Program for this school or facility. Implementation of these program components is required for compliance with AHERA. Appendix A contains specific maintenance and repair instructions for the types of ACM identified in this school or facility.

3.1 Informing Workers and Building Occupants

Maintenance workers, custodians, and building occupants must be informed annually of asbestos materials in the building(s), scheduled and ongoing asbestos-related activities, inspection results, management action(s), and periodic reinspection(s) and surveillance. Short-term workers, such as telephone workers, utility workers, repairmen, and host-nation contractors who could potentially come into contact with asbestos in this school must be informed by the AC of the locations of all known or assumed ACM prior to working in those areas.

Labels that warn of the presence of asbestos must be posted adjacent to both friable and non-friable asbestos materials located in routine maintenance areas such as boiler rooms, ceiling voids, and crawl spaces.

These labels must be posted for all friable and non-friable ACM including materials which have been encapsulated, enclosed, or repaired. All warning labels must be displayed in easily visible locations and must remain posted until the ACM has been completely removed. Labels shall have a brightly colored background printed with the following warning in large capital letters:

CAUTION: ASBESTOS HAZARD
DO NOT DISTURB WITHOUT PROPER TRAINING
AND EQUIPMENT

Labels written in both English and the host-nation language shall be posted.

3.2 Training Requirements

Prior to implementation of the O&M Program, AHERA requires that building maintenance and custodial staff receive two hours of asbestos awareness training. The maintenance and custodial staff must receive this training whether or not their work activities will involve contact with, or disturbance of, ACM. Also, all new staff must receive this 2-hour awareness training. For staff whose work activities may disturb ACM, 14 additional hours of training are required. New maintenance and custodial staff employees must receive the required training within 60 days of employment. For schools whose principals do not hire, supervise, or otherwise control building custodians or maintenance personnel, ways to implement the training requirements must be jointly explored with the supporting military installation and/or contracting agency. As outlined in the EPA regulations, training is required for the specific subjects listed below.

WORKER TRAINING OUTLINE

2-Hour Awareness Training

- Asbestos uses and types
- Health effects associated with asbestos exposure
- ACM locations in each school building where employees work
- Recognition of ACM damage, deterioration, or delamination
- Name and telephone number of AC, availability and location of Asbestos Management Plan

14-Hour Additional Training

- Proper ACM handling methods
- Respiratory protection and personal protective equipment
- Review of:
  - Methods to determine management action completion
  - Small-scale, short-duration work activities (projects involving up to 3 square or linear feet of ACM)
  - Contractor accreditation
  - Transport and disposal of asbestos waste
- Worker protection
- Respirator fit-test and hands-on training in respiratory protective measures; work practice procedure review

3.3 Respiratory Protection Program

Before any O&M procedures are initiated, a Respiratory Protection Program, as outlined in Occupational Safety and Health Administration (OSHA) Regulation 29 CFR 1910.134 and 1910.1001, must be implemented and documented for all U.S. government employees whose work activities will involve contact with ACM. A written program must specify standard operating procedures for the use and maintenance of the respiratory protection equipment. The program must include respirator selection, fit-testing, and hands-on training of each employee required to wear a respirator. Respirators selected for use must be approved as protective against particulates (P100) by the National Institute for Occupational Safety and Health (NIOSH). A baseline medical examination and annual examinations as outlined in the OSHA regulation must be provided for each worker required to participate in the Respiratory Protection Program.

Respiratory protection must be utilized by all U.S. government employees when performing any project where the potential for exposure to asbestos fibers exist. The type of respiratory and personal protective equipment required by workers must be established for each area where an O&M activity is scheduled. Initial air monitoring samples must be obtained to determine the concentration of airborne asbestos fibers in each work area. Recommendations for respiratory protection must be consistent with the results of the initial air samples.

The foregoing U.S./OSHA-derived requirements may be waived for host-nation contractor personnel employed under host-nation jurisdiction. Host-nation contractor personnel must use respiratory protection in accordance with host-nation requirements.

3.4 Area Restrictions for ACM Related Work

Access to areas containing either friable or non-friable asbestos materials must be restricted before starting any O&M activity that could disturb the asbestos.

Depending on the O&M activity, restriction of an area will typically use the following procedures:

- Scheduling the activity during hours when the area will be unoccupied;
- Posting signs at all entrances into the area;
- Temporarily shutting off or modifying the air handling system;
- Limiting other sources of air movement in the area; and,
- On occasion, may include isolating the area with air-tight barriers.

Only trained personnel who are necessary to perform the maintenance activity are to be allowed into the restricted area.

3.5 Fiber Release Episodes - Procedures and Management

A fiber release episode may result from damage or deterioration of friable ACM. In the event of a fiber release episode, immediate action must be taken to protect the building occupants and workers from exposure to airborne fibers. Access to the affected area must be restricted. Hazard signs must be posted at all entry ways, and the air handling system to that area shut off. The use of appropriate respiratory protection and protective clothing is required by workers when responding to fiber release episodes.

3.5.1 Minor Fiber Release Episodes

A minor fiber release episode is the disturbance of no more than 3 square or linear feet or 0.3 square or 1 linear meter of friable ACM. If a minor fiber release episode should occur, the AC must be notified immediately. Properly trained maintenance personnel must take immediate action to clean up the falling or dislodged material and repair the damaged areas of ACM using the following procedures:

- Completely saturate all dislodged material with water;

- Place all dislodged materials into asbestos waste disposal containers;

- Wet wipe all surfaces which may of had dust/debris deposited on the surface;

- Thoroughly clean all surfaces in the area using a high efficiency particulate air (HEPA) vacuum;

- Dispose of all debris, filters, mopheads, and cloths in sealed, labeled, leak-tight containers; and,

- Repair the damaged area of asbestos material with an appropriate encapsulant or an asbestos free material such as spackle, plaster, cement, or insulation. If the damaged area cannot be repaired, physically isolate and restrict access to the area and initiate actions to remove the damaged ACM.

3.5.2 Major Fiber Release Episodes

A major fiber release episode is the disturbance of more than 3 square or linear feet or 0.3 square or 1 linear meter of friable ACM. If a major fiber release should occur, the AC and the Area Office must be notified immediately. The following actions must be taken:

- Restrict entry into the area and post signs at all entrances to prevent access by unauthorized persons; and,

- Temporarily shut off or modify the air handling system and limit other sources of air movement through the area.

Corrective management actions associated with major fiber release episodes must be designed, supervised, and conducted by appropriately qualified persons.

3.5.3 Decontamination Procedures

After handling any ACM, the proper decontamination of tools and personnel must be taken. Decontamination involves:

- Wet wiping any tools involved in the corrective management action.

- HEPA vacuuming protective clothing including hood and booties to remove accumulated asbestos debris.

- Removing protective clothing by turning the clothing inside-out, rolling into a ball, and disposing as asbestos-contaminated waste.

- Before removing respirator, wet wipe your face and the respirator.

- Thoroughly washing any exposed body part which may have come in contact with the ACM.

3.6 Waste Handling and Disposal

All asbestos-contaminated waste materials are to be handled, transported, and disposed of in a manner that prevents all visible emissions. All protective polyethylene disposable coveralls, respirator filters, vacuum cleaner, and wastewater used in O&M activities must be considered "asbestos wastes". All asbestos should be placed in 0.20 mm polyethylene bags that have pre-printed asbestos warning labels affixed to the bags. The AC should maintain a supply of these bags.

Asbestos-containing and asbestos-contaminated material must be placed into sealable 0.20 mm polyethylene bags while still wet. Do not overfill or place more than 10 kg into it. The bag should then be evacuated with a HEPA vacuum. It should be sealed by twisting the top 15 cm closed and wrapping with a minimum of two (2) layers of duct tape. Twist the top, fold over, and then apply a second wrap of duct tape. Clean the outside of the disposal bag by wet wiping. Finally, place the bag into a second properly labeled 0.20 mm polyethylene bag.

If sharp objects are to be disposed of, these should be placed in a puncture proof container such as a fiber board box and then bagged.

Excess wastewater generated from wetting procedures should be containerized and disposed of through a series of two (2) sock filters. The first filter is 100 micron pore size and filters out large particulates. The second filter is 5 micron pores and filters out smaller particulates. The water can then be disposed of as uncontaminated waste. The used filters must then be disposed of as asbestos-contaminated waste.

In addition, to load, transport, unload, and for final disposal of asbestos-containing and asbestos-contaminated materials, disposal should be in accordance with base procedures and the host-nation regulations and procedures.

3.7 Maintenance and Repair Request Permit System

The presence of ACM in buildings requires the establishment of a standardized and coordinated procedure for reviewing work order requests. This is necessary to: a) prevent unauthorized or untrained individuals from performing work that could potentially release asbestos fibers into the building environment, b) ensure that asbestos-related work activities, other than small-scale, short-duration projects (projects involving more than the amount of ACM specified in Appendix A of this manual), are designed and conducted by qualified persons. A program should be instituted in which all work requests, including those for renovations, repairs, etc., are first forwarded to the AC for approval.

The AC should review all work order requests to determine if the requested project activities could disturb ACM in the proposed work area. Absolutely no work activities should be permitted prior to this review process. For areas where intended work could cause asbestos fiber release, specific work procedures and equipment should be specified on the work permit.

3.8 Recordkeeping

The EPA Regulations require that O&M plans and records be maintained in both a central location at the facility's administrative office and at the Area Office. These records should be kept on file with the Asbestos Management Plan or entered into appropriate sections of the Asbestos Management Plan and include the following:

- For areas where all ACM has been removed, records pertaining to those areas must be kept for a period of at least 3 years following the next reinspection date.

- For material management actions:
  - Name/signature of person(s) who collected air samples for work completion verification
  - Air sample location and date
  - Name/address of laboratory performing the air sample analysis
  - Date/method/results of analysis
  - Name/signature of person(s) performing analysis
  - Laboratory certification verification

- For cleaning activities conducted in areas of ACM:
  - Date/name of person(s) conducting the cleaning
  - Location cleaned
  - Methods used

- For individuals requiring training as outlined in Section 3.2:
  - Name and job title
  - Date and location of training
  - Number of training hours completed
  - Date of last medical surveillance examination, where applicable

- For other activities under the scope of the O&M Program:
  - Name of persons performing the activity
  - Initiation/completion date of the specific activity
  - Location/description of the activity, including preventive measures
  - Name and location of storage or disposal site if ACM is removed during the activity

- For each fiber release episode:
  - Date/location of the episode
  - Repair method
  - Preventive measures or management action taken
  - Name/location of storage/disposal site if ACM is removed during the activity

3.9 Periodic Surveillance

All ACM identified in the building(s) shall be visually inspected by a designated person at least once every six months. The purpose of the surveillance is to determine if changes in the condition of the ACM have occurred and caused the ACM to become damaged or friable.

The AC will maintain a record of the surveillance and any observed changes of the material in the facility's Asbestos Management Plan.

4.0 EQUIPMENT REQUIREMENTS

The following equipment and materials are required, as applicable, for implementing the recommended O&M Program:

RECOMMENDED INVENTORY FOR ASBESTOS O&M PROGRAM EQUIPMENT

Item	Quantity
"Danger Asbestos" Labeled Bags 75/Roll	1
6 mil Polyethylene Sheeting 10' X 100' Roll	1
Bridging Encapsulant 5 Gal Container	1
Duct Tape 10/Box	1
Garden Sprayer	1
Half Face Respirators	2
HEPA Filter Vacuum	1
P100 Respirator Cartridges 10/Box	1
Signs and Placards	1
Tyvek Suits 25/Box	1

5.0 RECOMMENDED MANAGEMENT ACTIONS FOR ASBESTOS MATERIALS

Table 5.1 presents detailed recommended management actions for all ACM present during the 2003 AHERA Inspection (2003 inspection). The information on Table 5.1 is grouped by building for each building included in the 2003 inspection. Table 5.1 lists asbestos materials, identifies their location(s), friability, recommends material management action(s), lists material management procedures specific for each material, and notes if cleaning of the functional spaces where the material is located is required.

The recommended management action(s) provides detailed instructions for the management of the asbestos materials identified by the 2003 inspection. The Material Management Procedures, found in Appendix A, provide material-specific procedures for surveillance, labeling, and maintenance and repair of asbestos materials identified at Mannheim American Elementary School. Appendix B provides procedures for initial and additional cleaning of functional spaces where asbestos materials have been identified.

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TABLE 5.1 - RECOMMENDED MANAGEMENT ACTIONS FOR ACM

BUILDING NUMBER	HOMO. MTRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	FRI-ABLE	MATERIAL LOCATION(S)	COMMENTS	RECOMMENDED MANAGEMENT ACTION(S)	MATERIAL MANAGEMENT PROCEDURE	CLEANING REQUIRED
0697 (Unknown)	001	VINYL FLOOR TILE (1' X 1' BEIGE WITH WHITE AND BLACK SPECKS)	NO	03, 04A, 121C, 122C, 123C, 124C, 125C, 128C, 129C, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	THE ADHESIVE FOR THIS MATERIAL IS MATERIAL #036. THIS MATERIAL IS LOCATED BELOW EXISTING CARPET IN SOME LISTED LOCATIONS. PORTIONS OF THIS MATERIAL WERE ABATED DURING THE BUILDING RENOVATION PROJECT.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.	VINYL FLOOR TILE OR SHEETING	NO
0697 (Unknown)	019	SHEET GASKET (2" - 6" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	NO	HEAT DISTRIBUTION ROOM 1, HEAT DISTRIBUTION ROOM 2, MECHANICAL ROOM 1, MECHANICAL ROOM 2, MECHANICAL ROOM 3A, OLD BOILER ROOM		1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.	GASKET MATERIAL AND FLEX CONNECTORS	NO
0697 (Unknown)	021	STALL PARTITIONS (GRAY CEMENT BOARD)	NO	GIRLS TOILET G3, OLD BOILER ROOM, 09D	ONE STALL PARTITION IN ROOM 09D IS DAMAGED AND NEEDS TO BE REMOVED. THERE IS ALSO ONE UNINSTALLED STALL PARTITION IN THE OLD BOILER ROOM THAT NEEDS TO BE REMOVED.	1. PORTIONS OF THIS MATERIAL SHOULD BE REMOVED WITHIN ONE YEAR OF RECEIPT OF THIS REPORT. 2. THIS MATERIAL COULD BE REMOVED BY QUALIFIED MAINTENANCE PERSONNEL WHO HAVE RECEIVED TRAINING IN SMALL SCALE, SHORT DURATION ABATEMENT PROJECTS. 3. FOR THE REMAINDER OF THIS MATERIAL, NO IMMEDIATE ABATEMENT IS REQUIRED. 4. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THE REMAINDER OF THIS MATERIAL. 5. CONTINUE SURVEILLANCE OF THE REMAINDER OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.	ASBESTOS CEMENT ITEMS	NO
0697 (Unknown)	036	FLOOR ADHESIVE (BLACK, UNDER 1' X 1' BEIGE WITH WHITE AND BLACK SPECKS VINYL FLOOR TILE)	NO	03, 04A, 121C, 122C, 123C, 124C, 125C, 128C, 129C, 221C, 222C, 223C, 224C, 225C, 228C, 229C, 231D, 232D, 233D, 234D, 235D, 238D, 239D	THIS IS THE ADHESIVE FOR MATERIAL #001. PORTIONS OF THIS MATERIAL WERE ABATED DURING THE BUILDING RENOVATION PROJECT.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.	FLOOR ADHESIVE (MASTIC)	NO

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TABLE 5.1 - RECOMMENDED MANAGEMENT ACTIONS FOR ACM

BUILDING NUMBER	HOMO. MTRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	FRI-ABLE	MATERIAL LOCATION(S)	COMMENTS	RECOMMENDED MANAGEMENT ACTION(S)	MATERIAL MANAGEMENT PROCEDURE	CLEANING REQUIRED
0697 (Unknown)	037	FLOOR ADHESIVE (BLACK, UNDER GREEN RAISED DOT RUBBER FLOOR SHEETING)	NO	CORRIDOR E, CORRIDOR H, STAIRWELL 1, 05 SUPPLY, 05A SUPPLY, 19, 20, 20A, 21, 22B, 22D, 22E, 27, 27B, 28, 28A, 29, 30, 30A, 31	THIS IS THE ADHESIVE FOR MATERIAL #005.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.	FLOOR ADHESIVE (MASTIC)	NO
0697 (Unknown)	039	WALL PLASTER (WHITE)	NO	CORRIDOR F		1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.	SURFACING MATERIAL AND WALL, CEILING OR MISCELLANEOUS TILES	NO
0697 (Unknown)	041	FLOOR ADHESIVE (BROWN GLUE ON BLACK ADHESIVE, UNDER GREEN VINYL FLOOR SHEETING)	NO	CORRIDOR B2	AT THE TIME OF THE 1997, 2000, AND 2003 AHERA INSPECTIONS, THIS PREVIOUSLY IDENTIFIED MATERIAL COULD NOT BE LOCATED DUE TO THE APPLICATION OF A NEW CONCRETE FLOORING PRODUCT. IT WAS ASSUMED THAT THIS MATERIAL STILL REMAINS WITHIN THE BUILDING.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.	FLOOR ADHESIVE (MASTIC)	NO
0697 (Unknown)	118	SHEET GASKET (4" - 6" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	NO	09 LOBBY, 27B	THIS MATERIAL IS LOCATED WITHIN THE PIPE CHASE INSIDE 09 LOBBY.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.	GASKET MATERIAL AND FLEX CONNECTORS	NO

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TABLE 5.1 - RECOMMENDED MANAGEMENT ACTIONS FOR ACM

BUILDING NUMBER	HOMO. MTRL. NO.	MATERIAL TYPE (MATERIAL DESCRIPTION)	FRI-ABLE	MATERIAL LOCATION(S)	COMMENTS	RECOMMENDED MANAGEMENT ACTION(S)	MATERIAL MANAGEMENT PROCEDURE	CLEANING REQUIRED
0697 (Unknown)	120	ROPE GASKET (WHITE)	NO	MECHANICAL ROOM 3A	THIS MATERIAL IS LOCATED ON PIPING AND IS USED AS A SPACER FOR CLAMPS.	1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.	GASKET MATERIAL AND FLEX CONNECTORS	NO
0697K (Unknown)	128	SHEET GASKET (4" DIAMETER, GRAY, ON PIPE FLANGE CONNECTIONS)	NO	MR		1. NO IMMEDIATE ABATEMENT REQUIRED. 2. CONSULT THE O & M MANUAL CONCERNING SAFE CUSTODIAL PROCEDURES FOR THIS MATERIAL. 3. CONTINUE SURVEILLANCE OF THIS MATERIAL UNDER THE ASBESTOS MANAGEMENT PLAN.	GASKET MATERIAL AND FLEX CONNECTORS	NO

APPENDIX A

OPERATIONS AND MAINTENANCE (O&M) PROCEDURES FOR ACM

MATERIAL MANAGEMENT PROCEDURE FOR: Asbestos Cement Items (e.g., non-friable heat shields, roofing, transite, firedampers, shutters, louvers)

INITIAL AND ADDITIONAL CLEANING: Refer to Table 7.1 in the Asbestos Management Plan

SURVEILLANCE: Refer to requirements in Section 3.9

LABELING: Refer to requirements in Section 3.1

MAINTENANCE AND REPAIR PROCEDURES:

Damaged asbestos cement items such as heat shields, roofing, transite, firedampers, and other similar materials should be replaced rather than repaired. Repair of damaged areas 1.0 square meter or less in size must be conducted if immediate removal and replacement is not feasible. Material management actions for areas greater than 1.0 square meter in size must be designed and conducted by qualified personnel.

Removal: To remove 1.0 square meter or 1.0 linear meter or less of asbestos cement materials:

- Thoroughly wet all surfaces, especially edges, using a spray bottle
- Carefully remove material using only hand tools
- Clean up area in accordance with Appendix B
- Dispose of all debris in accordance with Section 3.6

Repair of Surface Areas: Repair of less than 1.0 square meter of asbestos cement surface on floor, wall, or ceiling areas may be repaired by application of non-asbestos cement or other similar patching compound.

Restricted Activities: Maintenance staff must avoid activities that will damage asbestos cement materials. For example:

- Do NOT cut, saw, or drill holes in asbestos cement products
- Do NOT use power tools
- Do NOT use abrasive materials on asbestos cement products
- Do NOT use an ordinary vacuum or dry sweeping to clean up debris

MATERIAL MANAGEMENT PROCEDURE FOR: Floor Adhesive (Mastic)

INITIAL AND ADDITIONAL CLEANING: Refer to Table 7.1 in the Asbestos Management Plan

SURVEILLANCE: Refer to requirements in Section 3.9

LABELING: Not Applicable

MAINTENANCE AND REPAIR PROCEDURES:

Projects accomplished by trained personnel should not exceed 1.0 square meter.

Removal: To remove floor tile adhesive:

- Soak material with hot water
- Remove damaged overlying tile with hand tools
- Remove adhesive material with hand tools
- Clean work area in accordance with Appendix B
- Dispose of all debris in accordance with Section 3.6

Restricted Activities: Maintenance staff must avoid activities that will damage floor adhesive:

- Never dry-grind floor adhesive
- Never dry-scrape floor adhesive

MATERIAL MANAGEMENT PROCEDURE FOR: Gasket Material and Flex Connectors

INITIAL AND ADDITIONAL CLEANING: Refer to Table 7.1 in the Asbestos Management Plan

SURVEILLANCE: Refer to requirements in Section 3.9

LABELING: Refer to requirements in Section 3.1

MAINTENANCE AND REPAIR PROCEDURES:

The procedures below must be followed to protect building occupants if these materials require maintenance or repair.

Repair: Do not repair damaged gaskets or flex connectors. Replace with non-asbestos materials.

Removal: To remove and replace:

- Shut down ventilation system, if applicable
- Isolate air duct section, if applicable
- Thoroughly wet exposed material using a spray bottle
- Loosen bolts on flanges holding material in place
- Carefully remove all material, periodically wetting with water from a spray bottle
- Thoroughly clean entire area in accordance with Appendix B
- Dispose of all debris in accordance with Section 3.6

Restricted Activities: Maintenance staff must avoid activities that will damage gasket cloth materials. For example:

- Do NOT cut, saw, or drill holes in gaskets or connectors
- Do NOT damage intact material
- Do NOT use an ordinary vacuum or dry sweeping to clean debris

MATERIAL MANAGEMENT PROCEDURE FOR: Surfacing Material and Wall, Ceiling, or Miscellaneous Tiles

INITIAL AND ADDITIONAL CLEANING: Refer to Table 7.1 in the Asbestos Management Plan

ASSOCIATED CLEANING:

In areas where friable sprayed-on or troweled-on ceiling or wall materials are located, special cleaning procedures must be followed until all ACM has been removed.

- Four times each year, all rugs and carpets must be vacuumed with a HEPA filtered vacuum and then steam cleaned
- All non-carpeted floors should be damp-mopped daily

SURVEILLANCE: Refer to requirements in Section 3.9

LABELING: Refer to requirements in Section 3.1

MAINTENANCE AND REPAIR PROCEDURES:

The following procedures must be followed to protect building occupants if wall or ceiling surfacing materials or tiles require maintenance or repair. <u>These procedures apply only to activities involving 1.0 square meter or less of surfacing material.</u>

1. <u>Surfacing Material, Wall, or Ceiling (other than sprayed or troweled-on)</u>

   <u>Repair:</u> To repair damaged areas:

   - Patch holes with non-asbestos spackle or joint compound
   - Paint repaired surface with latex paint
   - Clean work area in accordance with Appendix B
   - Dispose of all debris in accordance with Section 3.6

2. Sprayed-on or Troweled-on Surfacing Material

Repair: To repair delaminated areas, the material should be removed according to the following procedures:

- Restrict access to area and conduct repair when building is not occupied
- Place a large disposable plastic sheet below delaminated area
- Spray affected area with water from a spray bottle
- Carefully remove loose or delaminated material with a putty knife and place into plastic bags
- Encapsulate scraped wall or ceiling with spray lacquer, being careful not to disturb intact material
- Clean work area in accordance with Appendix B
- Dispose of all debris and contaminated material in accordance with Section 3.6

Surface blemishes should be repaired according to the following procedures:

- Place a large disposable plastic sheet below affected area
- Lightly spray affected area with lacquer paint
- Clean work area in accordance with Appendix B
- Dispose of debris in accordance with Section 3.6

3. Acoustical Wall or Ceiling Tile:

Repair: Repair of acoustical tile is normally not required except for patching of small holes or abrasions to be covered for cosmetic reasons. Spray paint or putty can be applied to the damaged area.

Removal of Suspended Tile: To remove suspended acoustical tile:

- Wet tile using a spray bottle
- Carefully remove tile from metal grid
- Clean work area in accordance with Appendix B
- Dispose of tile in accordance with Section 3.6

Removal of Glued Tile: To remove glued acoustical tile from ceilings or wall:

- Wet tile using a spray bottle
- Carefully remove tile with a stiff-blade putty knife
- Keep all cut surfaces and edges damp using spray bottle
- Encapsulate remaining glue and adhered tile with latex paint
- Clean work area in accordance with Appendix B
- Dispose of all debris in accordance with Section 3.6

4. Miscellaneous Tile Materials: These materials should be removed and replaced when damaged. Repair is not recommended.

Removal of Miscellaneous Tile Materials: To remove 1.0 square meter or less of miscellaneous tile materials:

- Thoroughly wet all surfaces, especially edges, using a spray bottle
- Carefully remove material using only hand tools
- Clean up area in accordance with Appendix B
- Dispose of all debris in accordance with Section 3.6

5. For All Surfacing and Ceiling, Wall, or Miscellaneous Tile Materials:

Prevent Damage: Damage to surfacing material can be prevented by one or more of the following:

- Eliminate or minimize vibration to covered surfaces
- Eliminate airflow from ventilation ducts over or against surfaces
- Protect exposed areas from damage by barriers or protective guards
- Restrict activities which may result in impact damage to surfaces

Restricted Activities: Maintenance staff must avoid activities that will damage surfacing material. For example:

- Do NOT cut, saw, or drill holes in surfaces
- Do NOT damage intact material

- Do NOT hang or attach objects such as pictures, plant hangers or shelves from surface
- Do NOT spray surfaces with water for cleaning
- Do NOT use an ordinary vacuum or dry sweeping to clean debris

MATERIAL MANAGEMENT PROCEDURE FOR: Vinyl Floor Tile or Sheeting

INITIAL AND ADDITIONAL CLEANING: Refer to Table 7.1 in the Asbestos Management Plan

SURVEILLANCE: Refer to requirements in Section 3.9

LABELING: Not Applicable

MAINTENANCE AND REPAIR PROCEDURES:

Damaged vinyl floor material should be replaced rather than repaired. Projects accomplished by trained personnel should not exceed 1.0 square meter.

Removal: To remove floor tile or section of vinyl sheeting:

- Soak material with hot water
- Remove tile or sheet with hand tools
- Clean work area in accordance with Appendix B
- Dispose of all debris in accordance with Section 3.6

Restricted Activities: Maintenance staff must avoid activities that will damage vinyl floor material. For example:

- Do NOT cut, saw, or drill holes in vinyl material
- Do NOT use power sanders or chippers
- Do NOT perform dry stripping
- Do NOT use power disc strippers with steel wool pads
- Buff at slow speeds (175-190 RPM) with a low abrasive pad

APPENDIX B

INITIAL AND ADDITIONAL CLEANING PROCEDURES

INITIAL AND ADDITIONAL CLEANING PROCEDURES

For each area where friable ACM, damaged or significantly damaged thermal system ACM insulation, or damaged friable suspected ACM, was identified during the inspection, an initial cleaning is required. This cleaning must occur prior to any management actions, other than O&M activities or repairs, unless an equivalent cleaning has been performed within the previous 6-month period.

Table 5.1 identifies the locations requiring initial and additional cleaning.

Before any cleanup or O&M procedures are initiated, all persons conducting the cleanup must be examined by a physician to verify that each person can safely wear a respirator. Respirators must be fit-tested for each individual to ensure that the person will not be breathing contaminated air. During all cleanup and O&M procedures, the respirators will be worn at all times.

1. Friable Surfacing ACM Area Cleaning

The following equipment is required for conducting cleaning operations:

- HEPA filtered vacuum
- Steam carpet cleaner
- Large 6 mil plastic bags
- Cloths and mops
- Spray bottle
- Half and full facepiece air-purifying respirators with dual replaceable P100 cartridges
- Protective clothing (Tyvek)

NOTE: Exercise caution when using water around electrical fixtures and outlets.

All carpets in rooms containing ACM should be cleaned first with a HEPA filtered vacuum and then by a steam cleaner. All curtains and books exposed to the ACM should be HEPA vacuumed. Vacuum bags and filters should be placed in sealed 6 mil plastic bags for disposal.

Wet mop all other floors in the rooms where ACM is located. All shelves and other horizontal surfaces should be wiped with damp cloths. Use a mist spray bottle to keep the cloths damp. Cloths and mopheads must then be discarded in sealed and labeled 6 mil plastic bags.

The following cleaning procedures must be conducted whenever asbestos-containing debris is discovered.

- If there is visible asbestos debris in the area, immediately put on a respirator and continue the cleaning procedures as described in this section.

- Spray with water any debris found near friable surfacing ACM and place the debris in labeled 6 mil plastic bags using a dust pan. Thoroughly rinse the dust pan with water in a utility sink. Immediately report the presence of debris to the AC. **DO NOT SWEEP ASBESTOS DEBRIS WITHOUT THOROUGHLY WETTING IT FIRST.**

- HEPA vacuum and steam clean all carpets.

- Wet mop all other floors and wipe all other horizontal surfaces with damp cloths.

- Dispose of all debris, filters, mopheads, and cloths in labeled 6 mil plastic bags in accordance with local regulations for disposal of asbestos waste.

2. Thermal System Insulation Cleaning

The following equipment is required for conducting cleaning operations:

- HEPA filtered vacuum
- Steam carpet cleaner
- Large 6 mil plastic bags
- Cloths and mops
- Spray bottle
- Half and full facepiece air-purifying respirators with dual replaceable P100 cartridges
- Protective clothing

All floors should be HEPA vacuumed then wet mopped in the rooms where the pipe or boiler/tank insulation is located. HEPA vacuum and steam clean all carpets contaminated with asbestos-containing thermal system insulation. All shelves and other horizontal surfaces should be wiped with damp cloths. Use a mist spray bottle to keep the cloths damp. Air filters that are potentially contaminated by ACM fibers should be sprayed with water, removed carefully, and properly bagged prior to disposal. Air handling equipment, including ducts and room areas supplied by the potentially contaminated system, must be thoroughly cleaned using HEPA-equipped vacuums prior to filter replacement. Cloths, mopheads, and filters should be discarded in sealed, labeled 6 mil plastic bags according to local regulations for removal and disposal of asbestos waste.

3. Cleaning Procedures for Miscellaneous ACM Areas

Most ACM that is not either surfacing material or thermal system insulation is non-friable. Items such as vinyl asbestos floor tiles, ceiling tiles, transite pipes, and gaskets are examples of materials that are usually considered to be non-friable. Specialized cleaning procedures are not necessary for these materials unless they have sustained damage. If these materials are damaged, the cleaning procedures described for thermal system insulation should be implemented until repair of the material has been completed.